

RURAL WORLD

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ST. LOUIS, THURSDAY, MARCH 27, 1884.

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Sorgo Department.

National Sugar Growers' Association.

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We have recently perused a pamphlet by Mr. H. O. Ames, describing the advantages to be gained by using the fumes of sulphur in cane juice, and also the increased efficiency of a continuous steam train as compared with isolated pans.

In this pamphlet the author has given to the public many useful hints, and directs attention to the weak points in the practice of sugar making.

The utility of sulphur fumes may be considered as pretty generally conceded, but it is important that every person engaged in the manufacture either of sugar or of sirup should understand that chemical reagents as well as machinery, must be used intelligently in order to derive benefits therefrom.

The question of a continuous train, as compared with isolated pans and storage tanks for semi-sirup, etc., must be settled by the experience of each manufacturer. One of the most wasteful features in sugar manufacture is the abuse of fuel. A great deal can be saved in this respect by carrying the process rapidly to a conclusion. But a stoppage of any part of the work will then immediately stop the whole—and it is necessary, when working continually, to have each successive stage in the work controlled by machinery of a little larger capacity than the preceding, in order to keep the road clear. Now, when it is considered that the mill, at its best, runs but eighteen hours out of the twenty-four, whereas the evaporators can be run full time, the economy of working without storage tanks admits of question.

As to settling tanks and their advantages, we consider that opinions upon this point may be held in reserve until the chemistry of cane juice is better understood than at present.

Mr. Ames' little treatise is very suggestive in many places, and we shall have further occasion to refer to it.

Steam Coil, Etc.

BY E. W. DEMING, OF THE LAFAYETTE SUGAR COMPANY.

In reply to the article of H. B. Lennawee county, Mich., would say—For a copper pan 4 feet in diameter or less, would use 2 in. coil with one inlet and one outlet; for 5 or 6 foot pan, would use 1-2 in. coil, with two inlets and two outlets; larger pans should have 2 in. coil, with two or more inlets and outlets. Four foot pan requires 40 feet or 96 lbs. of 2 in. coil, with one inlet and one outlet; if of 1-2 in. coil, with two inlets and two outlets, there will be required 52 feet or 136 lbs. A 5 foot pan requires 71 feet, 11-2 in. coil, two inlets and two outlets, weighing 160 lbs. A 6 foot pan requires 90 feet, 1-2 in. coil, two inlets and two outlets, weighing 205 lbs.

The above is from memory, but will not miss it much; 2 in. coil should be 1-2 in. coil, one inch apart in the pan, 1-2 in. coil, but one inch apart.

Inlets and outlets should be through the bottom of the pan by a long brass elbow on the coil, furnished by the copper-smith.

Sediment as is found in all semi-sirup, and in the juice of immature cane, as well as the scale thrown from coil by the use of acid, fall to the bottom of the pan; this can best be removed by water and a hose, or a cloth pushed from the outside to the center of the pan, where it can be taken out. A 4 foot pan with 100 lbs. pressure of steam on the boiler, is good for 20 to 40 gallons of sirup per hour. This pan would require a 15 or 20 H. P. boiler.

In my last I neglected to speak of the atmospheric pressure (nearly 15 lbs. per square inch) that the steam forming on the coil must overcome before it escapes, by which the deep boiling has much the advantage approaching nearer the vacuum.

I believe the committee on samples at our convention should include in their report a brief notice of every model or piece of machinery devoted to this industry on exhibition. The enterprising manufacturer who may come many hundreds of miles deserves this. Many cane workers, that otherwise would not, will attend to see and hear of new machinery—they will learn something, return home and make better sirup and thereby assist in introducing the only pure cane sirup to be had in our market, against a foolish prejudice. History demands a record of these improvements and how can it better be done than through the proceedings of our meetings.

I do not like the date of our next meeting, 3rd Wednesday in January, prefer it one month earlier—the experience of the season's work would be fresher in our minds. Doubtless many northern workers will visit Louisiana this fall returning about December 15th, just in time to attend the meeting, saving the expense of a second trip and insuring their attendance. There must be good reasons for having the meeting in January. Should like an expression on this; cannot the executive committee fix the date as well as the place of our next meeting?

We have used the past season a paddle wheel sulphur box, through which the juice passed leaving the mill; its work was very unsatisfactory, the attendant would allow the fire to die out. Cane from different soils and under other circumstances, such as had been out some

time or exposed to hard or continual rains, required varying quantities of sulphur to accomplish the same result. For the above reasons, the box was thrown out, and will either force the fumes of sulphur into the juice in the clarifier with a pump, or force them into a barrel of hydrate of lime, making a strong bisulphite of lime that can be used with as much certainty as lime. Will Prof. Wiley kindly tell us of the different ways of preparing bisulphite of lime and sulphurous acid, manner of applying, and its effect when used in connection with lime? Can it be used on cane juice for the same results as on beet juice? What has become of the sorghum lapping fiend of Bavaria, Kas? Has he become a martyr to science, departing this life by the explosion of one of his signal service sorghum thermometers, or must he have the presence of solid blocks of cane miles square and 12 feet deep to obtain the necessary "inspiration" to do us fellows up? Come to the front please.

West Point, Ind., March 17th, '84.
Remarks: The time of holding the next meeting can be made to suit the majority of the members—if their wishes can be ascertained. But after the crop is worked up there will be time to settle this matter.

Sulphur Fumes.

EDITOR RURAL WORLD: I tried sulphur fumes last year, and like it very much. This is one form of sulphurous acid, Bisulphite of lime is another. (very convenient too.) Stewart's "Solution B," is another. It is a powerful antiseptic as well as a bleacher.

The price of the "sulphur machine" of the Southern planters, puts it away out of reach of small manufacturers. Dr. Miller gave me an idea, and I worked out what I now use—a wooden cupboard, made water tight, twelve inches deep and twenty-four wide and high, (all inside measurement,) with seven shelves twelve inches wide and twenty-two inches long. Put the first shelf against one end of the box, the next one against the other end, and so on alternating. Set this level each way. Run the strained juice from the mill into the top of the box at the end against which the shelf is put, which will run from shelf to shelf, through the box, and out at the lower corner on the bottom on the same end. Bore a hole in the end just above the lower shelf, (opposite end from the outlet for the juice) for the entrance of the sulphur fumes, and a hole over this in the top for its exit. For draft and to carry off the fumes, insert in this hole a piece of tin conductor as long as convenient or necessary.

Now have a tinner make a "joint" of pipe, six inches at one end and two at the other. Cut a square hole at the bottom and a sheet iron slide for charging and draft. Set this in a round tin, connect the top with the sulphur box by a piece of conductor with an elbow, and you have my sulphur box and stove completed.

Start the mill, and as soon as the juice enters the box, put a piece of iron pipe, stone in the tin, light it, and regulate your draft at the square hole, burning more or less brimstone, as the juice may require, to give the right color. Of course I use lime, the best I can get. I use a No. 1 crusher, and burn bagasse; both of which work first rate.

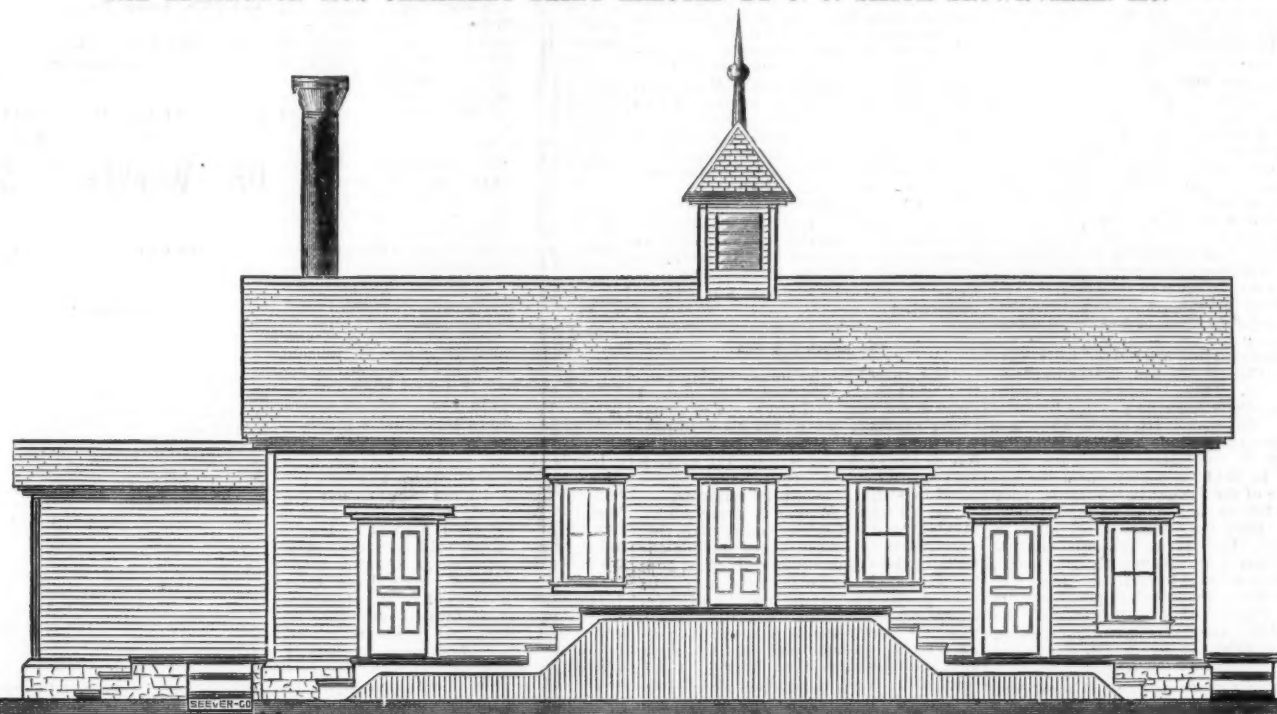
Lengthy yours,

C. L. N.
Osceola, Tioga, county, Pa.

Machinery for Making Bisulphite.

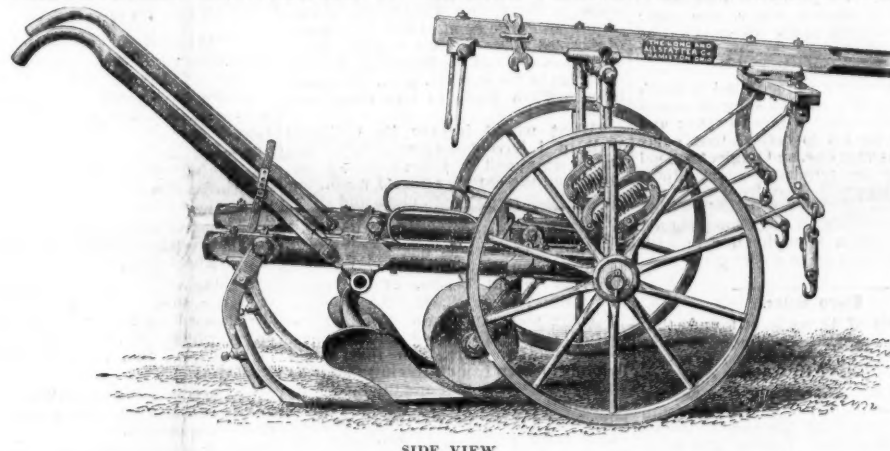
I have been pleased with some of Mr. Anderson's articles in the RURAL WORLD. He is a good writer, and I thought the amount was going to get something good; but when he described his machine, I see it is a failure, and that many amateurs will get into difficulty trying to use it. In the first place, his report is too small for the amount of charcoal and sulphuric acid that he charges it with, so that when it is heated it will foam up and run over into the lime water, and he has no way of telling whether he is charging the lime water with sulphurous gas or charcoal and sulphuric acid. He might just about as well put the coal and sulphuric acid into the lime water without the machine. He writes me he has been studying how to make bisulphite of lime for the last two years; it is too bad, when any good chemist could have told him, and if he had read the United States Agricultural Report on sorghum sugar, 1880, he could have seen a cut with descriptions of the apparatus, for making sulphurous acid solution, with directions how to use it. It works well, and you can tell what you are making. I have used one two years, with good results. I will describe it as it is in the report: It consists of a small-sized, not water tank for kitchen range, about 40 inches long and 10 inches diameter. Into this, powdered charcoal and oil of vitriol are put, the sulphurous gas is passed through iron pipes into a wash-bottle, containing oil of vitriol, and from thence into a barrel nearly filled with water. A safety tube is connected with the wash-bottle, to prevent any possible rushing back of the water into the generator, in case of the withdrawal of the heat. By this apparatus, a barrel or two of the solution may be made in a short time, and at an expense not over 75 cents per barrel. For two barrels there would be required 75 pounds of oil of vitriol and 7 pounds of powdered charcoal. This description is not easily understood without cut of apparatus. Any one wishing a photograph of the cut, may have it by sending me 15 cents, to pay for printing them. There are some that want a good machine to make sulphurous acid solution and Bisulphite of lime. I do not know where you can get one, unless you get a pattern and have the tank cast, and that costs too much just for one. I have several letters inquiring about it, and they want me to get them one.

THE LEXINGTON MO., CREAMERY BEING ERECTED BY J. J. SMITH BROWNVILLE, MO.

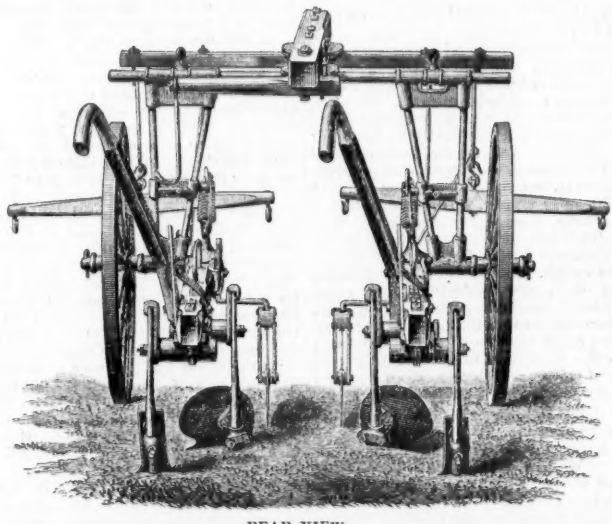


FRONT ELEVATION—MISSOURI CREAMERY BUILDING ASSOCIATION J. J. SMITH AND CO., PROPRIETORS, BROWNVILLE, MO.

THE HAMILTON ADJUSTABLE-ARCH BAR-SHARE CULTIVATOR WITH BAR-SHARES AND ROLLING COULTERS ATTACHED—MANUFACTURED BY THE LANG & ALLSTATTER CO., HAMILTON, OHIO.



SIDE VIEW.



REAR VIEW.

Herewith we present illustrations showing both side and rear views of this complete cultivator, which is manufactured and sold by The Lang & Allstatler Co., Hamilton, Ohio.

In addition to the advantages already secured in the Hamilton Cultivator, a thorough test during the past season has proven it completely adapted to the use of Rolling Coulters, which new feature is of great advantage to the farmer, enabling him to plow earlier, and under circumstances that would render it difficult, if not altogether impossible, to plow without the Coulters. When the ground is encumbered with vines, grass or imperfectly covered stalks, or a crust has formed upon it, that will break or tear up the corn, the Coulters will be found indispensable. They will cut the weeds, stalks or crust of the soil, and enable the farmer to do thorough and good work under the most adverse circumstances. The additional feature of the "Hamilton" needs but a moment's consideration to show its great advantage, the make of the "Hamilton" alone rendering the use of the Coulters practicable.

The manufacturers of the "Hamilton" inform us that its sales the past season were more than double the sales of the season previous, while the sales of 1882 were an advance of over 100 per cent over the sales of 1881. Its make is such, that the necessary changes are made in an instant by the mere loosening of a set-screw.

The Arch is formed of a straight rod bent of wrought iron, and two uprights, which are adjustable laterally upon it; to the lower ends of these uprights the ends of the beams and the wheels are connected, and are therefore adjusted

with them. The wheels are adjusted in and out with the beams, and can be set at any point desired between two and four feet apart, which makes the "Hamilton" superior for cultivating corn, potatoes, cotton, broom-corn or corn planted by a lister.

Coal Oil Barrels Again.

For cleaning coal oil barrels I use ashes as a substitute for dirt and lye, leaving the barrel full of water, and shaking it for a week or more. I usually take out the head after they are cleaned. In this way I use, them, for rice, pork, skimmings, etc., but have never used them for sirup, as my customers object to iron-hooped barrels, as they are so liable to leak. The ashes and water can be put into the bung hole and save trouble of taking out the head. O. C. B. P. S. Do coal oil barrels leak when filled with sirup?

Agricultural.

Johnson and Other Grasses.

EDITOR RURAL WORLD: One of your Missouri correspondents makes some inquiries about Johnson grass, and as I seeded some lots to this grass some eight years ago, and have since given it great care and attention, I will say to him that my conclusions are that it is not alone objectionable as an agricultural pest, but is an inferior grass for hay and pasture in Northern Alabama, and that I believe it would prove to be so in any portion of Missouri.

It requires the ground to be plowed and manured every year, and without these, in compact, stiff soils, there is soon diminished growth, and with these repeated plowings, roots are destroyed and the stand is thinned, and re-seeding is required, besides, the cold wave of last January froze many of the roots here. It is an unpleasant, refractory plant, surpassing all vegetation in its marvelous growth in rich, loose soils, and without these conditions in soils, almost as help-

less for best results in production as many of our field crops. It may deserve all the praise given it, way down in Dixie, on rich, sandy loams, but on stiff lands and in our upper southern latitudes, farmers will act wisely to let it alone.

The sooner Southern farmers can relieve themselves of the impression that their lands and climate are not suited to grasses of known value in other and higher latitudes, and quit fooling with these troublesome tropical makeshifts, the better.

Though there have been but few intelligent and persistent efforts made to solve the grass problem in the South, they are by no means discouraging, and it is gratifying to the whole South to see the great creamery industry invading your State, Mr. Editor, for creameries means grass to sustain them, and this innovation in Missouri will encourage efforts below her for progressive agriculture, in laying down firmly and substantially its underlying support—grass culture.

The great value to us of our agricultural colleges is not properly appreciated by our law-makers, or ourselves, but even with their plucked appropriations,

there is cheering progress in their mission of usefulness. Why is it that our governmental appropriations to agriculture are so disproportioned? The answer is plain, there is too much lawyer and not enough farmer in our legislatures, and this answer is very far from being prompted by prejudice, for lawyers have as much right to go to our legislatures as farmers, but the trouble is that so many of them are in our legislatures and that they are unfamiliar and unsuited; indeed, too often, indifferent to assist interests which are not exactly in their line.

American statesmanship, and nineteen-twentieths of what we call our statesmen are lawyers, are much more at home legislating in the interests of their professions, framing laws to suit manufacturers or banks, or making lavish appropriations to every conceivable governmental extravagance, or gifts to railroads, and this, in their view, may be exercising a high order of statesmanship, but a much more comprehensive statesmanship, and even grander, is certainly to multiply blades of grass; in this they surely would be fostering the most substantial wealth of all countries, and just here, the common sense view comes in that there should be more farmers and fewer lawyers in our legislatures. Again, more farmers are needed to put on the brakes and restrain reckless appropriations for any purpose; for this recklessness, especially so at Washington, is fast breaking up the deeps of honest and honorable labor and occupations, and we are becoming a restless nation of beggars. We are sowing the wind and the whirlwind must come. Pardon this line of thought, though hardly a digression.

Farmers, however, should insist upon fairly liberal State appropriations, for agricultural trials, especially those of grass culture.

The South is credited with not being a grass country, and how little her farmers are prepared to say whether this is true or not, and no southern State should refuse aid to solve the problem for them. This provided for, with favorable experiments a great impulse would be given to grass culture. Even in portions of the United States, where grass has been made a leading farm product for more than a century, only lately has the greater value of an acre for meadow 12 lbs. timothy, 5 lbs. Italian Grass, 5 lbs. Meadow Fescue, 4 lbs. Red Top, 3 lbs. Rough Stalk Meadow Grass, 3 lbs. Foul Meadow and 6 lbs. Medium Clover; and for an acre of permanent pasture, as a mixture, sow 5 lbs. Kentucky Blue Grass, 5 lbs. Meadow Fescue, 5 lbs. Orchard Grass, 5 lbs. Meadow Fescue, 5 lbs. Red Top, 2 lbs. Sweet Vernal, 2 lbs. Pacey's Rye Grass, 2 lbs. Rough Stalk, 2 lbs. White Clover, and I believe with these mixtures there would be success with them in the South, and that they are worthy of a trial. Grasses are the Daniel Batchelor's mixtures, who is an authority on grasses, and are more especially so mixed for his own State—New York. In my own limited experience in grass culture, I have known how grasses sustain each other growing in company, spread one end over the dirt; how soon and if sown and grown alone, how soon they disappear. It is certainly a prime consideration that the ground in meadow or pasture should be wholly occupied with the most suited varieties, determined by observation, and just here comes in the inferiority of this Johnson grass, it fails to occupy the ground, and because of this, the best condition I have ever had it in and cut at height for best hay, the aggregated amount of three mowings of it during the season is not much.

NORTHERN ALABAMA.
Tusculum, Alabama.
Testing Seeds.
EDITOR RURAL WORLD: My method of testing seeds is this: Fill a gallon crock within an inch of the top with mellow earth; then take an old cloth twice as large as the top of the crock, spread one end over the dirt; then pour enough hot water on to saturate the cloth and moisten the earth; then sprinkle the seeds over the cloth; turn the other end of cloth over, and fill nearly full of earth; then set under cook stove or any other warm place, three or four days; then take hold of edge of top cloth and turn it back, and you can see just what you have got.
To any one not satisfied with their present rig, I think it will pay to investigate the merits of the Michael rig, consisting of filter, pan and cooler. The pan is a self-skimmer five pan, and suits me best of anything I have seen.
T. G. H.
Macy, Ind.
Artichokes.
FRIEND COLMAN: Agreeably to invitation I venture to write a short article on "Artichokes." First, I have none to sell. I have tried them four or five years and like them; prefer planting so as to "plow both ways;" in the fall I think is a good time to plant, if not as early in spring as the ground is fit to work; plant where they will be easily fenced off so as to let hogs on them and turn on, at beginning of cool weather; if you wish, dig or plow some up, and store for winter feed for cows and sheep.
J. G. S.
Rock port, Mo., March 17th, 1884.



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COLMAN'S RURAL WORLD

THIRTY-SIXTH YEAR.

BY NORMAN J. COLMAN

PUBLISHED WEEKLY
AT \$1.50 PER YEAR; OR EIGHT
MONTHS \$1.00.ADVERTISING: 40 cents per line of space;
50 cents on large or long time advertise-
ments.Address NORMAN J. COLMAN, Publisher,
600 Olive Street, St. Louis, Mo.(Advertisers will find the RURAL WORLD one
of the best advertising mediums of its class in
the country. This is the testimony of all
who have given it a trial. Many of our
largest advertising patrons have used it for
more than a quarter of a century, which is the
highest possible recommendation of its value
as an advertising medium.)

ADDRESSES.

Norman J. Colman has accepted invita-
tions to deliver addresses at the follow-
ing places and times:Bellefonte, Pa., Saturday, March
29th, on the Feasibility of Creameries in
St. Clair County.Sedalia, Mo., Wednesday, April 2nd,
before the Missouri Short-horn Breeders'
Association on Breeding Practical Short-
horns.Kansas City, Mo., Thursday, April
3d, before the Missouri Wool Growers'
Association.Springfield, Mo., April 4th, Prac-
ticability of Creameries in Missouri.Rolla, Mo., April 5th, on Missouri as
Adapted to the Dairy and Creamery
Business.Fayette, Mo., April 12th, Missouri
as Adapted to the Creamery Industry.Jackson, Tenn., May 9th, before the
West Tennessee Horticultural Society on
"Borough Culture—Tennessee Can and
Should Produce Her Own Sirup and
Sugar."AGRICULTURAL COLLEGE, Mississippi,
May 18th, Annual Address at Commence-
ment Exercises of College.Omaha, Nebraska, Sep. 5th, Annual
Address at the Nebraska State Fair.Will some reader of the RURAL
WORLD tell me the best way to clear a
corn field of corn stalks, to prepare it
for plowing? I am a young farmer and
don't know the best way to do it.

AUDRAIN.

It is not difficult to make two farms
out of one. The way to do it is to
double its capacity. Double its products.
Good drainage is indispensable, good
manuring, proper rotation of crops,
plenty of grass and stock. Most of the
farmers in the country could have their
products doubled by a better system of
manuring—but underdraining, on the
other hand, is indispensable to develop their
greatest capacity.The bill which has been introduced in
both houses of Congress to make the of-
fice of Commissioner of Agriculture,
Secretary of Agriculture with all the
rights and privileges of other cabinet
officers, ought to become a law. Agricul-
ture is the foundation of our country's
prosperity. Every interest, every hope
is dependent upon it. So important an
interest deserves representation in the
highest sphere of our government. Give
it a cabinet position.As the RURAL predicted several
months ago, the potato yield was so
large last year that this spring would
be a very low one. The prevailing price
is as low as the figures prevailing last
fall, if not lower. Our predictions were
strictly correct as the sequel showed.
Choice eating potatoes, Peerless, Rose,
etc., can be had at 40 to 45 cents per
bushel. Some choice eastern lots adapt-
ed for seedling purposes are a trifle higher,
and dealers inform us there is an un-
usually heavy demand for them.It will surprise a number of our readers
engaged in the culture of fruits, vegeta-
bles, etc., for a livelihood, where com-
petition sometimes springs from a far
off as to be wholly unexpected. New
Mexico is shipping cabbage by the car
load from Albuquerque, and the rates, regard-
ing freight, \$325 per car, and in transit 19
days. There are also car loads of 250
pounds net in each crate. The heads
are the largest ever offered here, 20 to 30
pounds each, and the quality excellent.
The failure of the early southern crop
which should be coming now freely, en-
ables the New Mexico growers to present
very remunerative market here at present.The Brownsville Herald of March
21st says: In this week's issue we pre-
sent our readers a condensed report of
the creamery meeting at this place on
Saturday, the 15th. Our creamery was
erected by J. J. Smith, a contractor and
builder of creameries, late of Lincoln,
Neb., but now a citizen of Brownsville.
It has cost our citizens a large sum of
money and water, thirty-eight hundred
dollars, and has a daily capacity of
2,400 pounds. It is second to none in the
State. Mr. Smith has fulfilled his con-
tract to the letter, giving us an excellent
building, and our citizens will all recom-
mend him to other places or parties
contemplating the erection of simi-
lar institutions.POTATOES, oats, onions, cabbages,
turnips, carrots, lettuce and all seeds of
hardy plants should be put into the
ground as speedily as possible. Spring
is late and there should be no delay.
The early crops, if well put in, give the
largest yield. It does not pay to put in
any crop in a poor manner. The plow-
ing and harrowing should be well done.
A soft, mellow seed bed should be pro-
vided, for the seed have to die and
be resurrected into a new life and new
plant, and to bring all this about the
proper conditions should be complied
with, so that the new plant may start
off with vigor of growth, and not be
starved or stunted as it would be in a
hard, barren soil.FARMERS should bear in mind this is
the season of the year when a
wise provision of nature that trees can
safely be dug from where they have
grown and be removed to our homes to
adorn them and give shade and shelter
to man and beast. Once planted they
are a part of the homestead, to remain
there forever. A home without trees is
like a house without wife or children.
Lonely and desolate. Improve home,
make it more attractive, more valuable
by planting trees now—even if you have
to go to the woods for them. Any kind
of tree is a thousand times better than
no tree at all. If cedar and pine grow
in your vicinity, go on a moist day and
dig them 2 or 3 feet high, and care-
fully plant them about the house to look
bright and inviting in winter. Plant
elm, maple, sassafras, linden, any kind you
can get.NO READER OF THE RURAL WORLD has
the least excuse for neglecting the sale of
Holstein cattle to be made by J. W.
Stillwell & Co., at their farm, Troy, O.,
on Wednesday next, the 2nd of April.
In the sale will be found eighty-five head
of cattle, as enumerated in the advertise-
ment, and on the farm may be found
300 others, any or all of which may be
purchased at private sale.There may be found animals of all
ages and both sexes, and also the
\$5000 son of Mercedes, the cow
that died last week in calving, after
having a record of 99 lbs., 6-1-2 oz., of
butter in 30 days, to that date the big-
gest record by any animal of any herd in
the world. J. W. Stillwell & Co. have
the sale will be found within a mile of the
depot, with good side-walks and trans-
portation all the way, and the
farm is found one of the most enter-
prising engaged in the importation and
breeding of Holstein cattle in this
country.By all means should those who con-
template the creamery business, whether
in this or adjacent States, attend this sale,
if possible, bring some home with
them. If there is a tide in the affairs
of men which taken at the flood leads on
to fortune, now is the time to take the
step, or, leave it neglected and
forever afterwards lament and regret the
loss.INVITATION TO SPEAK AT SPRINGFIELD,
MO.Gov. N. J. COLMAN: I have been
consulting with Maj. J. C. Craven and
others about trying to get you to address
our people on the 4th of April, in the
Court House, on the subject of the
"Creamery System of Butter Making." We
see by your paper, that you speak at
Sedalia on April 2nd, Kansas City, April
3rd, Rolla, April 5th, etc. Now, if it will
not be taxing your physical system too
much, we would be glad to have you
come by Springfield, on your way to
Rolla, and address our farmers on April
4th.There is a rapidly growing interest
here in the dairy industry. Many are
tired of wheat raising, and are ready to
embark in the dairy business. They do
not fully understand the method of con-
ducting creameries, and desire to hear
from you on that subject, and on the
practicability of adopting them in Mis-
souri. You will have a large and ap-
preciative audience.Hoping that you will comply with our
wishes, and be present, I am, very truly,
Your friend,
A. W. McPHERSON.

Springfield, Mo.

REPLY.—By the time tables we see
that it is possible to be with you April
4th, and you can say that we will be
present, and give your people a talk on
"The Practicability of the Creamery
System of Dairying in Missouri."

TILE DRAINAGE.

In our address before the New York
Cane Growers' Association we urged
the importance of the drainage for sor-
ghum. We are confident the sorghum
growers in the North can invest their
money in no other way that will pay
half as well as in the draining the fields
in which sorghum is raised. Lately a
convention has been held in Iowa to
encourage tile drainage, and we give some
of the reasons given why every farmer
should be underdrained:1. Because it will make our soil and
climate at least 3° warmer. Water
standing on the earth or the soil water-
soaked in the Spring requires a vast
amount of sun heat to expel it, and the
farmer has to wait. Frequently it be-
comes late, and he plants before the soil
has become warm enough, the seed rots,
and the work must be repeated, and the
crop is forced into the season of frost in
the fall. If the soil is drained, the first
warm sun rays remove the frost from the
ground, and the soil is ready for the
farmer. One underdrain is worth a
dozen open drains. 2. It will insure
larger crops. Safe planting in Spring
will be done on well drained soil. With
the first warm sun the seed springs up
and gets in advance of the weeds, and
the farmer has a whole season in which
to cultivate his crop. 3. It will make
crops more certain and reliable. In
early spring in our drained soil seed
will remain a long time without rotting.
The water of a rainy, wet spring passes
into the porous soil and is carried off.
One season is like another for under-
drained soil. 4. It will remove at least
sixty per cent of the diseases among
cattle, horses and hogs and domestic animals.
This has been thoroughly demonstrated.
The cost of sickness and loss of time,
the result of malaria, which comes from
stagnant water and water-soaked soil,
would pay for draining the whole State.A large number of diseases among
cattle, horses and hogs are traceable to
impure water taken from sloughs, stagnat-
ing ponds, etc., and stagnation in the
earth or air is death.

THE BROWNVILLE CREAMERY.

The Brownsville Herald gives a report
of the addresses made by the editor of the
RURAL WORLD last week, at the inaugu-
ration of the creamery erected at that
place by the latter named gentleman,
but as this report occupies over two
columns of that journal, it is too lengthy to
be copied. The people of Brownsville and
vicinity are proud of their creamery,
and expect to make a great success of it.
As good grass country surrounds Brown-
sville as the sun shines upon, and if the
farmers want to keep cows and produce
milk, they can do it as well as any farm-
ers in the world. The first year it is rather
an up-hill business to enter into any new
undertaking, but the production of milk, or
rather cream, can be made profitable from
the start, but much more profitable the
better one prepares for it.

COLMAN'S RURAL WORLD ENLARGED.

Gov. Colman has enlarged his RURAL
WORLD. For a long time we have
wanted to pay the WORLD a compli-
ment; now in our humble way we will
do it. In our opinion it is the best agri-
cultural weekly published in the valley of
the Mississippi. It should be in the
hands of every farmer from Lake Itasca
to the Balize. The stand Gov. Colman
has taken in regard to the cultivation of
the Northern sugar cane, has made him
a public benefactor, and he should be
considered as such by all those who have
the best interests of the country at heart.COLMAN'S RURAL WORLD was estab-
lished in 1848. For thirty-seven years it
has been filled with the choicest matter
in regard to agriculture, horticulture and
poultry. It has ever been the farmer's
friend. As long as Gov. Colman is at the
head of its editorial columns, it will re-
main so. The subscription price is only
\$1.50 per annum. Send to St. Louis the
money and subscribe for it. It will be
the best investment that you can make
with so small a sum of money.—Min-
nesota Farmer's Tribune.

LEXINGTON CREAMERY.

In this issue is presented a front view
of the creamery building being erected
at Lexington, Mo., by J. J. Smith, the
extensive builder of creameries. On
account of the great rush of business,
Mr. Smith has lately associated with
him several other practical and experi-
enced men under the firm name of
Missouri Creamery Building Associa-
tion, with headquarters at Brownsville,
Saline Co., Mo. They will devote their
entire time and attention to the building,
equipping and starting of creameries,
either for private parties, or on the co-
operative plan, in Missouri and adjoin-
ing States. Arrangements will be com-
pleted within a few weeks with respon-
sible commission merchants in a few of
the leading butter markets, who will
make a specialty of handling the product
of these creameries. An association
brand will be adopted, but will be used
in the following manner: The brand will
be furnished the commission merchants
who handle the product. If, in their
judgment, the butter comes up to such a
certain standard that will warrant the
use of the brand, it will be placed there-
on, otherwise not, thereby preventing a
poor article being placed on the market
under this brand, and also prevents a
shipment of poor butter from one cream-
ery to another, and the sale of ships from
other creameries, bearing the same
brand, as is usually the case where an
association of creameries use the brand
themselves. They also are prepared to
do and furnish competent butter-makers,
and insure to every creamery the ad-
vantages of all the facilities and advan-
tages claimed by other organizations or firms,
besides quite a saving of expense in
starting.The buildings they erect are complete
and substantial structures, containing
furnished rooms and apartments, con-
veniently arranged: cream-room, churn-
room, butter-working-room, office, stor-
age-room, cooling-room, refrigerating-
room, wash-room, engine and boiler
room, fuel-room, and ice house. The
buildings are constructed with 3 air cham-
bers, outside walls, double doors and
windows; fitted up with steam and
cold water coils for heating and cooling
building; steam pipes, water pipes,
steam jets, etc., and following is a partial
list of machinery and fixtures used in
their large plant: Two 100-gallon power
churns; three 400 or four 300-gallon
cream vats; 35 patent refrigerating haul-
ing cans; power butter scales; cold
and hot water and washing tanks; force
pump in well; cream plants; thermom-
eter; every necessary shafting; belts;
pulleys; hangers, etc.; office furniture;
and books; 10 horse boiler and engine;
and all small articles needed in the busi-
ness.While this association is prepared to
build as extensive and complete cream-
eries as any firm, they advocate cheaper
creameries, claiming that, like any other
business, it should be made to pay divi-
dends on no more capital stock than is
really necessary.A capital stock of from \$4,000 to \$5,000
will erect and equip a creamery with
from 2,000 to 3,500 lbs. daily capacity,
and leave a working capital of from
\$500 to \$1,500. In many places from
\$2,500 to \$3,500 will erect and equip
suitable buildings to work up the pro-
duct of the territory, and leave a
sufficient working capital. This
association will vary the size and price of
creameries to meet the demands of any
place or party.Cheaper creameries and more economy
in conducting them, is what the people
need.We invite correspondence from all
places or parties contemplating the erec-
tion of a creamery in Missouri and ad-
joining States, and will take pleasure in
giving information.Address: Missouri Creamery Building
Association, Brownsville, Mo.R. M. BELL from Southwest Missouri,
in a private note to us says: "Not so
thundering cold down here as the typo
made me say—40° to 50° below zero!"
When? "Where?!" "M!!"—4° to 5°
was the truth—nothing more.No wonder the printer's devil bears so
bad a name. He is never happy unless
he is getting some editor or correspond-
ent into trouble. He makes it cold for
writers in this world, but it will be made
hot for him in the next.COLMAN: I have been waiting
anxiously for the published proceedings of
the Mississippi Valley Cane Growers'
Association—but can hear nothing in re-
gard to them. The meeting was held in
January and it is now almost the first of
April. Can you tell me where it was
held, and what was the result of the
meeting? SORGO GROWER.REPLY.—We cannot. We have been
looking for the publication for sometime.
Mr. Field undertook the publication and
took all the essays and proceedings dur-
ing the meeting and we have not seen or
heard anything from them since. We
presume they will shortly appear.KEEP plaster always on hand. It is
a special fertilizer for clover, beans, peas
and potatoes. It will promote the
growth of nearly all plants, affords par-
tial protection against drought, and will
furnish a valuable winter food for stock.
It is the cheapest and, for its cost, is the
most remunerative. Two bushels only
are needed for a good application.It is now a well-known fact that
judicious cultivation is a conservator of
moisture. A western experimenter in
this direction gives this summary of his
investigations: Give deep culture early
in the season, and shallow and repeated
culture late in the summer. In cultiva-
tion plow deeply first, and employ a
peculiar cultivator through the season
thereafter, which only lightly stirs the
surface.A NEW phosphate material under the
name of Aves guano has lately been im-
ported into Germany from the Aves
Islands, in the Caribbean Sea, near the
coast of Venezuela. Analyses made
show that it contains seventy-two per
cent of calcium phosphate, four to nine
per cent of calcium carbonate, seven
per cent of organic matter and 9.25 per
cent of nitrogen. The material consists
of a fine powder with more or less frag-
ments of the size of a pea or larger.The extent of the deposit is said to be
great.Reports of an experiment made by the
State Agricultural College of Michi-
gan, on their farm with sowing land
plaster on grass, claim that two bushels
of plaster produced over two-thirds as
much increase as twenty loads of horse
manure. Speaking of plaster, the late
Geo. Goldens (once president of the N. Y.
State Agr. Society) used to say that
the proper time to apply it to clover was
after the plants had made some growth,
say after the wheat harvest on clover
sown in the spring. He thought the
plaster acted directly on the leaf on
which it was sprinkled.

The Cattle Yard.

H. V. Pugsley, the Secretary of the Mis-
souri Wool Growers' Association, whose an-
nual meeting takes place this year at Kansas
City on the evening of Wednesday, April
2nd and the shearing on the 3rd, writes us
that he has received the following railroad
rates for the Missouri Wool Growers' As-
sociation: The Missouri Wool Growers' As-
sociation will excursion tickets to those
desiring to attend the Missouri Wool Grow-
ers' meeting and shearing from Sedalia, Mo.,
Berly, Nevada and intermediate stations at
1-13 fare. Tickets to be sold April 2nd good to
return on or before April 5th.There ought to be a grand good meeting
of all who are engaged in the wool growing
business in this State, and we hope to see at
least 300 of them there.The sale announced in another column,
of Messrs. Geary Brothers and Geo. Whitfield,
to take place at Kansas City, April 15, 16
and 17, will be in every respect noteworthy.
Few if any such offerings of the respective
breeds represented have been made in this
State, and it will be a fine opportunity for
a single sale, all being high bred animals,
and individually good ones. It will include
Polled Angus and Shorthorns, with the ad-
dition of 17 head of Galloways, the property of
Mr. Whitfield. Among the Aberdeen-Angus
will be worthy representatives of the Erics,
Fridges, MacKibbins, Tullyfour Queens and
all the leading families of the breed.Messrs. Geary write us: "We have ten grade
calves, dropped this spring, every one of
them black and hornless."The annual meeting of the Missouri Short-
horn Breeders' Association will come off at
Sedalia, Mo., on the 2nd and 3rd of April, and
doubtless prove a very interesting meet-
ing. Every breeder in the State indeed ought
to be present, and be there charged with
something to say in regard to the breed,
which the association has charge of. In that
however, may be found lots of work and
trouble for much matured thought and debate
thereon, and this, we hope to see at the forth-
coming meeting.Heretofore we are free to admit the meet-
ings have been somewhat unprofitable,
but that is more the fault of the
brothers of the State than of the Association.
We must have the best thoughts of the best
men, carefully prepared, tersely put, and
logically discussed; then will our Short-horn
Breeders' Association do something worthy of
its name, and send the members home with
something worth remembering.We have not less than five hundred men in
this State breeding Short-horn cattle, and
ought at least to have an attendance of half
that number at the annual meeting. Come,
gentlemen, all!Are there any other of our domestic ani-
mals that will take the foot and mouth dis-
ease. Will horses take it? Please answer
through RURAL WORLD and oblige.REPLY.—Horses do not take the disease but
suffer and heavy take it, and spread it, and
should be quarantined as thoroughly as
cattle.—The symptoms of the foot and mouth dis-
ease are blisters in the mouth, on the tongue,
lips and gums, the nose, on the feet around
the top of the hoof and between the claws.
In cows blisters are found on the udder and
teats. These blisters result in open sores,
which in course of time heal up and form
scabs. The animals lose their appetite and
are lame in moving around. The first symp-
tom is shivering, and the escape of saliva
from the mouth. Within forty-eight hours
from the time of its contraction, the disease
manifests itself. The animals stand uncon-
fortably and jerk their limbs together sud-
denly; and in milk-cows the milk dries up.
When the mouth becomes affected, yellowish
white blisters appear, in size from a grain of
mustard to a pea or nut, are irregular in form
and may be scattered or confluent. At first
they are grey, afterwards white, and when
torn open present a bright red sore called
crescens. Under favorable conditions, such
as care, proper food and attention, the dis-
ease is less fatal than many others.—Ex-
change.Foot and Mouth Disease—The English Loss
\$5,000,000 Annually By It—200,000
Animals Affected Last Year.WASHINGTON, March 22.—The recent out-
break of the foot and mouth disease in Kan-
sas, Missouri and other Western States, and
the loss of life and property, has excited
country gives additional interest to the state-
ments received by the State Department re-
garding the spread of the foot and mouth
disease among the English herds: "I
think no one can find fault with me in re-
specting the fact that the English herds, since
the year 1880, at \$5,000,000 per annum in their
cattle and milk and cheese, not taking into account
veterinary attendance. The British farmers
taking advantage of his distress, has cried out
that the disease was imported, some say from
the United States, others from France, in 1880.
The truth is that this assertion is entirely
wrong. France can look to her own case and
defend herself or not, as she pleases, but on
behalf of the United States I will take it upon
myself to assert, and I can prove the asser-
tion, that the foot and mouth disease, that
now rages to such an extent in England, ex-
cept the disease of the English herds, is the
one originated near London, and has spread
to a greater or less extent, in thirty-two En-
glish and five Welsh counties, as well as into
certain portions of Scotland and Ireland, so
that in one week the number of farms infected
with fresh outbreaks, and the number of
animals attacked, has been doubled. Nine
per cent of the English herds are said to
be in the past year, has been those of farmers,
though he adds that the condition of the stock
resources of England has been considerably
ameliorated by the "American craze for En-
glish cattle," paying as much for one bull as
the value of a herd of American cattle, which
he would be as fine as the English cattle, and
the same care was given them. The number of
animals attacked during the year 1883 has
been, according to his report, considerably
over 200,000, or nearly as many as in the entire
four years preceding this. Regarding the
cause and possibility of a cure, he takes quite
a long time in explaining his opinion. In his
opinion, the disease arises from various causes
beyond control, and will continue and increase to
such an alarming extent as to affect the entire
European supply. The climate of Europe is
very bad, and acts upon a soil that has been
under cultivation for so long a time as to be
exhausted of cow, sayings and manure, and
hence the forces required must be made up
by artificial means hurtful to cattle and pro-
motive of disease. The American demand
for "blooded cattle" has caused the English
to force their cattle too much, and this un-
natural forcing has contributed toward forcing
disease. It is his opinion, however, that the
manures that have been used upon an im-
provised soil are the principal factors in
generating and propagating the various dis-
eases with which the European herds are af-
flicted."—Post-Dispatch.Save Your animals much suffering from
accidents, cuts and open sores, by using
Stewart's Healing Powder.

The Horseman.

Tips and Toe Weights.

Jas. Catron Simpson of San Francisco, Cal-
ifornia, has just published, and advises above
to every horseman. He does not believe in
the rigid, unyielding iron shoe that gives no
play or expansion to the horse's foot. He has
found that shoes are unnecessary, and every-
body knows they are hurtful. He is a be-
liever in the use of iron or steel tips to pro-
tect the toe of the foot. By their use, and
without having ever put a shoe on Anteo he
trotted when 4 years old in 2:30. He claims
that for ordinary use even on macadamized
roads tips are all that are required; that
that fearful cause of lameness, contraction,
is entirely avoided by the use of tips. We
are good men to them, and advise every
tip in the manner he recommends. Send
\$1.50 to him and he will send you the book
and it will be as good an investment as you
ever made for the money.COL. COLMAN: Can any of your readers in-
form me about the horse Rice Graves, said
to be raised by Jilson Johnson, of Kentucky,
his pedigree, and whether he has any colts
that may be anything?J. D. GIDDINGS,
Sheboygan Falls, Wis.COL. COLMAN: Mr. C. F. Clark has just re-
turned from Kentucky with a pair of fine
stallions, "Moss Rose," the saddle horse,
seven years old this spring, and a world
beater, "Charlie Ross," sired by Smuggler—
is a four-year-old, 16 hands, and a beauty,
will stand them at his farm, ten miles west of
Mexico, Mo. Mr. Clark expects to have 100
extra good manure, and will sell the pair for
these two horses. Such stock as the
above will prove quite an addition to Andrian
County and the surrounding country, for the
procuring of which Mr. Clark deserves much
credit.You will hear from me again, with more
names to add as subscribers to the RURAL
WORLD.
R. CALLAWAY.

Eastern Illinois Circuit.

Please announce in the RURAL WORLD, that
a trotting circuit, by the above name, has
been formed, with dates and places as follows:
"Fast" Ill., July 20th, 21st, 22nd, 23rd, 24th,
25th, 26th, 27th, 28th, 29th, 30th, 31st, and
Aug. 1st, Shelbyville, Ill., July 6th, 7th, 8th, 9th,
10th, 11th, 12th, 13th, 14th, 15th and 16th.We hope some of the St. Louis horsemen
will put in an appearance with their horses,
as this is convenient to them, and the meet-
ings are on a straight line, and easily reached.
SUBSCRIBE.

A New Cure for Worms in Horses.

COL. COLMAN: In the RURAL WORLD of the
6th inst. I note an inquiry for the cure of
worms in horses. A good many of the colts
on the place were troubled with worms last
fall, and in the fore part of winter, as I
tried every known remedy, which I have
never seen recommended, but which has
worked with admirable success. I got a lot
of cotton wood sticks, from 4 to six feet long,
and of varying thickness, and scattered them
through the colts' paddocks. They soon be-
gan to peel off the bark and seemed to relish
it. Soon a copious discharge of worms
proved its efficacy. I had heard that an in-
fusion of cotton-wood bark cured this dis-
order in children—and that gave me the
hint. Since my first experiment, I have kept
a constant supply of these cotton-wood sticks
not only among the yearlings, but the older
colts, brood mares and aged horses, and it
has worked like a charm in every case—act-
ing as a tonic and preventive as well as a
cure. I have tried a great many remedies
for worms, but have found none as cheap,
simple, easy of application and so efficacious
—and hence give you the information for the
benefit of horseman. Respectfully,
C. H. NELLIGAN,
Supt. Artesian Stock Farm,
Prairie-du-chien, Wis., March 20, 1884.

Clark Chief Blood in the Trotter.

The Spirit of the Times, in speaking of the
coming sale of Peter C. Kellogg & Co., and
of the horses offered, says: "Among the stall-
ions, a fast horse and a full brother to
Woodford Chief, 2:22 at 5 years old. Clark
Chief's blood is found in Phyllis, 2:15; Wil-
son, 2:16; Majolica, 2:17; Croixie, 2:19; and
Tony Newell, 2:19. Nothing in the Mam-
brino Chief family makes a better showing
than the Clark Chief blood. There are few
entire sons of Clark Chief, and Confederate
Chief was among the fastest of them. His
opportunities in the stud have been very
limited. He should prove a success."—The Illinois State Board of Agriculture
at its late meeting decided upon the fol-
lowing purses for the next Illinois State Fair,
commencing September 8, 1884, at the Chi-
cago Driving Park:TWO and under 3 years.....\$ 200
Three and under 4 years.....\$ 300
Four and under 5 years.....\$ 400
Five and under 6 years.....\$ 500
Six and under 7 years.....\$ 600
Seven and under 8 years.....\$ 700
Eight and under 9 years.....\$ 800
Nine and under 10 years.....\$ 900
Ten and under 11 years.....\$ 1,000
Eleven and under 12 years.....\$ 1,100
Twelve and under 13 years.....\$ 1,200
Thirteen and under 14 years.....\$ 1,300
Fourteen and under 15 years.....\$ 1,400
Fifteen and under 16 years.....\$ 1,500
Sixteen and under 17 years.....\$ 1,600
Seventeen and under 18 years.....\$ 1,700
Eighteen and under 19 years.....\$ 1,800
Nineteen and under 20 years.....\$ 1,900
Twenty and under 21 years.....\$ 2,000
Twenty-one and under 22 years.....\$ 2,100
Twenty-two and under 23 years.....\$ 2,200
Twenty-three and under 24 years.....\$ 2,300
Twenty-four and under 25 years.....\$ 2,400
Twenty-five and under 26 years.....\$ 2,500
Twenty-six and under 27 years.....\$ 2,600
Twenty-seven and under 28 years.....\$ 2,700
Twenty-eight and under 29 years.....\$ 2,800
Twenty-nine and under 30 years.....\$ 2,900
Thirty and under 31 years.....\$ 3,000
Thirty-one and under 32 years.....\$ 3,100
Thirty-two and under 33 years.....\$ 3,200
Thirty-three and under 34 years.....\$ 3,300
Thirty-four and under 35 years.....\$ 3,400
Thirty-five and under 36 years.....\$ 3,500
Thirty-six and under 37 years.....\$ 3,600
Thirty-seven and under 38 years.....\$ 3,700
Thirty-eight and under 39 years.....\$ 3,800
Thirty-nine and under 40 years.....\$ 3,900
Forty and under 41 years.....\$ 4,000
Forty-one and under 42 years.....\$ 4,100
Forty-two and under 43 years.....\$ 4,200
Forty-three and under 44 years.....\$ 4,300
Forty-four and under 45 years.....\$ 4,400
Forty-five and under 46 years.....\$ 4,500
Forty-six and under 47 years.....\$ 4,600
Forty-seven and under 48 years.....\$ 4,700
Forty-eight and under

other world renowned fliers. Widow Mac-
dougall was also when she foaled Aber-
deen, sire of Hattie Woodward (2:35), Mo-
doe (2:18), and several others which have
records of 2:30 or better. Princess was seven-
teen years old when she dropped Hattie
Medium. With the exception of Daniel Lam-
bert, Gen. Knox's get have been more suc-
cessful upon the turf than those of any other
horse bred in New England. The year in
which his dam was foaled has not been as-
certained. It is a well established fact, how-
ever, that she was a daughter of Searcher.
The latter was by Barney Henry, out of a
mare by Gifford, he by Woodbury, a son of
the original Justin Morgan. Searcher was
foaled in 1847, and his earliest record could
not have been dropped before 1850. As Gen.
Knox was foaled in 1853, his dam could not
have been more than five years old the
season he was raised. It is true that some
mares are more vigorous and capable of
greater endurance at twenty years of age
than others at five. It is also true that many
brood mares whose early foals were lame
lingered, appear to lose their vitality to
such an extent that those produced late in
life are scarcely up to the average. —*American
Culturist.*

BREEDERS' DIRECTORY.

H. B. SCOTT, Sedalia, Mo., breeder of Short
Horn Cattle, Poland China Hogs and
Cottswold Sheep. Anything in the herd for
sale.

HEREFORD AND ABERDEEN - ANGUS
CATTLE—Gudger & Simpson, Importers
and breeders, Independence, Mo. An inspec-
tion of their herds is invited.

SHORTHORN CATTLE—J. F. Finley, Breck-
enridge, Mo., breeder of Shorthorn Cattle
and Berkshire Swine. Imported Kirk-
linton Lad at head of herd. Stock for sale at
all times.

KANSAS SHORTHORN CATTLE—Robert
Patterson, M. D., Hamilton, Kansas, breeder
of Shorthorn Cattle and Berkshire Swine.
For sale. Inspection invited.

JAMES H. PARKER, Columbia, Mo., breeder
of Shorthorn cattle, Southdown and Cot-
swold sheep. Grand Duke of Sharon 27/29 at
head of herd. Price reasonable.

ANGUS AND GALLOWAY CATTLE—W. H.
A. and A. Leonard, Mount Leonard, Mo., im-
porters and breeders of Angus and Galloway
cattle and Spanish and native Jacks.

CHARLES E. LEONARD, proprietor Ra-
venwood herd of Shorthorn Cattle, im-
ported Spanish Jacks and Jennets and Mer-
ino Sheep, Bell Air, Cooper Co., Mo., or Fred-
rick, Mo. P. R. R.

HIGH CLASS BATES CATTLE, bred and
for sale by M. W. Anderson, Independence,
Mo. Craggs, Barringtons, Harts, Fiacs,
Acorns, etc. Kirklington Duke 32/38 at
head of herd.

WILLIE & JUNIOR K. KING, Peabody,
Marshall, Mo., breeders of Shorthorn cattle,
cattle, Vancouder 70/74, 4860, Imp., and
Grand Duke of Clark, Jr., head the herd.

W. T. HEARNE, Lee's Summit, Mo., on Mo.
Pacific R. R., 24 miles east of Kansas
City, breeder of pure bred Shorthorn cattle
of the highest type. Herd numbers 100 head.
Farm adjoins the town.

JOHN MORRIS, Chillicothe, Mo., breeder of
Short-horn cattle, Berkshire swine, Cot-
swold and Merino sheep. Stock for sale at rea-
sonable prices. Write.

HOLSTEIN CATTLE. GUS. Head, Alton
Junction, Ill., breeder of Holstein cattle,
Poland China Hogs, Bronze Turkeys, Lan-
shan and Plymouth Rock Fowls and Collie
Dogs. Eggs and Chicks in season.

DE. ABRAM NEFF, Arrow Rock, Saline
county, Mo., breeder of Short-horn cat-
tle. Ornamented Duke at head of herd. Corre-
spondence solicited.

G. C. WRIGHT, Pacific, Mo., or 906 Pine St.,
St. Louis, Mo., breeder of pure and high class
Jersey Red and Victoria Hogs, Shepherd
Dogs, Plymouth Rock, Georgia Shawl Neck
Chickens, Toulouse, China and White
Geese, Pekin Ducks, White Holland and
Bronze Turkey's Eggs for hatching.

T. C. CAMPBELL, Breeder of Holstein Cattle,
Manchester, St. Louis Co., Mo. Railroad station,
Barrett's, Mo. Pac. Ry. Inspection of stock invited.

FOR SALE. A. J. C. BULL CALVES, tracing to
such noted sires as Signal 175, Rock 175, and
the Great Mercury 432, JAS. G. CREVELING,
East St. Louis, Ill.

JERSEY CATTLE, highly and fashionably
bred and the best butler families. Bulls
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able prices. Premium herd St. Louis Fair
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Sweepstakes on Cows, Herd premiums, etc.
Animals properly shipped and delivered at
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DE. H. B. BUTTS, Louisiana, Pike county,
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H. V. P. BLOCK, Aberdeen Farm, Pike Co.,
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white Yorkshire and Berkshire pigs. Send for
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SETH WARD & SON, Westport, Mo., breed-
ers of the best of all breeds, including
Fleischers, Barringtons, Kirklingtons,
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ses, Castanets, Minas, Hupent, Darlington,
Griggs, Rose of Sharnon, Velums, Mazurkas,
Miss Wiley, Barringtons, Rose, young Mary,
Ford of Vancouder, etc., at head of herd.
Young stock for sale.

JACKS—I have for sale Jacks, Hogs, and
grade and thoroughbred Short-horn bulls.
W. H. BASS, Columbia, Mo.

JERSEY RED HOGS bred and for sale by
Rozelle & Peck, Breckenridge, Caldwell
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J. BELL & SON, Summerville, Texas, coun-
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CHESTER WHITE HOGS. H. W. Tomkins,
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Improved Chester White pigs. Stock for sale
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BERKSHIRES—N. H. Gentry, Sedalia, Mo.,
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MERINO SHEEP—H. V. Pagsley, Platt-
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C. F. F. W. Prairieville, Pike county, Mo.,
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T. C. LIPPITT, Shenandoah, Iowa, breeder
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Size, constitution and amount of cleaned
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I. H. SHIMER, Hillsboro, Ill., breeder of
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D. W. MCQUITT, breeder of Merino sheep,
Berkshire swine and high-class Poultry.
Hugheville, Pettis Co., Mo. Has 400 rams
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MERINO SHEEP and Light Brahma
fowls, all of the best strains, at
McNelly & Bro., Lee's Summit, Mo.
Prices reasonable.

SUFFOLK SWINE, files ready for delivery
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J. W. BLACKFORD, Bonaparte, Iowa, breed-
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China Swine of best strains. Correspondence
invited. Prices reasonable. Satisfaction guaran-
teed.

G. K. L. MENGER, Palmyra, Mo., breed-
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expressed. Also, breeder of pure bred Ply-
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per setting of 13. Write or call.

CHESTER WHITE and BERKSHIRE HOGS,
of the best breeds, bred and for sale by
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DUROC, or JERSEY RED HOGS, and Large English
Berkshire Plymouth Rock Fowls, all of the very
best breed, for sale by W. LEONARD REID, Sandy
Bridge, Jefferson Co., Mo. A fine lot of very
early Pigs, now. Eggs for hatching, \$1.50 per set-
ting (13). A few fine Chickens, \$2.00 each, delivered
in South St. Louis. Write.

DUROC, or JERSEY RED SWINE, bred and
for sale by Dr. G. H. Donaldson, Brecken-
ridge, Mo. For history and price list ad-
dress as above.

MERINO SHEEP, Berkshire Hogs and all the
varieties of high-class Poultry, all of the
best strains. HARRY McCULLOUGH, Fayette, Mo.

POLAND CHINA and BERKSHIRE HOGS
bred and shipped by H. H. Allen, Sedalia,
Mo. Also, pure bred Plymouth Rock Chickens.

PLYMOUTH ROCKS of the best strains,
Largest flock in St. Louis County. Eggs
\$2 for 13, carefully packed. Fowls for sale at
reasonable prices. Write Mrs. F. M. Dyson,
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CHAS. GALLE, Columbia, Mo., breeder and
shipper of high-class Poultry, Pekin
Ducks, Toulouse Geese. Eggs shipped in
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MRS. J. J. BRICE, Breeder of Mammoth
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J. INN COUNTY POULTRY ASSOCIATION,
Lanshan, Partridge, Cochins, Wyandott,
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Turkeys. Eggs and Chicks in season. Prices
low, stock pure. Correspondence solicited.
Chester White Pigs for sale. Ed. H. Norton,
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EGGS FOR HATCHING. Partridge Coch-
ins, Brown and White Leghorns, \$1.50 per
setting of thirteen. Also, Pekin
Duck and Bronze Turkey eggs in sea-
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Bronze Turkeys, \$2.00 per setting of nine. Ad-
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NOTICE. PURE PEKIN DUCK EGGS for
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high-class birds, \$2.00 for 13. Mrs.
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HIGH CLASS POULTRY. Plymouth Rocks,
Black Javas, Partridge Cochins, Brown
and White Leghorns, S. S. Hamburgs, Bronze
and White Holland Turkeys and Pekin Ducks
Stock for sale. Eggs in season.
MISS ALICE FISKE, Hannay City,
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PURE BRED REGISTERED YORKSHIRE
HOGS, Holstein Cattle, Bronze Turkeys
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BREEDER OF HIGH CLASS POULTRY,
Plymouth Rocks (Pekin strain), Hon-
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G. McROBERTS, South Cabanne St., bet. Shaw
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J. BAKER, Sapp, Columbia, Mo., breeds
Large English Berkshire swine, Merino
Sheep, Choice Plymouth Rock Fowls and
Pekin Ducks. Catalogue free.

POLAND CHINA SWINE, pure bred. Liberal
reductions to first purchasers in each
county. Full catalogue of breeds sent free upon
application. Address us before purchasing
elsewhere. H. H. WALLS & Co., Bedford,
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POLAND CHINA HOGS and pigs and PLYM-
OUTH ROCK Poultry of pure breed and
high quality. Fair prices and prompt at-
tention to customers.
H. C. MINTER,
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HOLSTEIN CATTLE, Shropshire Sheep
bred and imported by JOS. E. MILLER,
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SOUTHDOWN SHEEP, Berkshire Pigs and
High Grade Shorthorns. J. M. SCOTT,
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JERSEY CATTLE, Southdown Sheep and
Plymouth Rock Fowls. JOSEPH P. SMITH,
Breeder, Freeburg, Ill.

SHORT-HORN CATTLE, Percheron Horses
and Berkshire Pigs. WM. J. MILLER,
Breeder, Belleville, Ill.

PLYMOUTH ROCK FOWLS and Eggs and
all kinds of native and imported Fowls
and Garden Seeds. L. G. WENTGE, Belleville,
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QUERNEY CATTLE, Oxfordshire Sheep,
Plymouth Rock Fowls, Pekin Ducks,
White Holland Turkeys, all pure bred and
low price. Henry C. Eckert, Belleville, Ill.

JERSEYVILLE STOCK FARMS.

Trotting Bred Horses

STALLIONS IN USE.

YOUNG HAROLD 1823, got by Harold (sire of
Maid S., 2:30-1-4) dam by Almont (sire of
Alone, 2:12 to pole). Service fee, \$50.00. Usual
EXILE 1143, got by August Belmont 306 (sire of
Don Cossack 2:28), dam by Mambrino 258
(sire of Lone, 2:20). Service fee \$25.00 to insure.

CLAY CUYLER 1707, got by Cuyler 100 (sire of
Day Dream, 2:22-1-2 at four years), dam by Ameri-
can Clay (sire of Maggie Briggs, 2:27). Service fee
\$25.00 to insure.

THE BREEDING MARES are by the following sires:
Harold, Cuyler, Princess, Paconet (2:25-1-4), Al-
bin, Woodford Mambrino (2:21-1-2), Alexander's
Torian, Woodford Chidabak, Kentucky Rocket,
Ben Patchen, Blood Chief, and Clark Chief, Jr.
Young Stock, Matched Pairs, and good Driving
Horses for sale at all times.

Stock shown any day except Sunday.
Good box stalls and pasture at reasonable rates for
mare left for sale and pasture. Address as above.
Also, RED HOGS for sale.

Call on, or address J. V. STRYKER,
Jeffersonville, Ill.
(40 miles from St. Louis, on C. & A. R. R.)

M. W. DUNHAM

90 PER CENT OF ALL HORSES

From France to America,

Whose Family of Blood is established in the
Paris Stock Book of France, which is the
only one of its kind in the world.

Mr. Dunham has just published a 25,000
page book of his hand-
some family of blood, which is the only one of its
kind in the world. It contains the names of
1,000 horses, and is a valuable work for all
breeders of horses. It is now on hand, and
will be sent to you on receipt of \$1.00 per
copy. Address as above.

STALLIONS & MARES

Now on hand. All Stallions Guaranteed Breeders.
Catalogue, \$1.00. Address as above.

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HORSES.

At Mr. STERLING, KY.

PUBLIC SALE.

W. H. WILSON'S Third Annual
Sale of High Bred Trotting Stock

Abdallah Park, Monday April 16, 1884.

The get of his developed Stallions, Indian-
apolis 2:21; Jubilee Lambert, 2:25; Ravens-
wood 2:26; Hambletonian Mambrino,
2:21; and other producing sires and well
bred stallions. Catalogue can be had on
application to W. H. WILSON, Abdallah Park,
Cynthiana, Ky.

THE TROTTING STALLION,

WM. L. HULL.

Will make the season of 1884 at the Farm
Farm, formerly called the Stevens Farm, 3
miles from Meadville, a station on the H. &
St. Joe R. R., Elletts Co., Mo.

Wm. L. Hull is a black horse, 16 hands
high, a fast trotter, and was sired by the cele-
brated Mambrino Patches. His sister, Lady
Thorn, with a record of 2:16 1/4. He was
sired by Mambrino Chief and his dam was
Lady Thorn's dam, by Gano, son of American
Kelpie.

The dam of Wm. L. Hull was the well known
trotting mare Dixie, full sister to Lackey,
both sired by the great sire of trotters, Pilot
Jr. The dam of these mares was Bedlammer.
In the trotting stallion, Hull, the blood of the
three greatest families of trotters is united.
No trotting stallion in America is better,
or more fashionably bred. Terms: \$25.00 the season.
Mares not proving in foal can be returned
free next year. Pastureage on very reason-
able terms. Address,

R. J. FRUIN,
Meadville, Linn Co., Mo.

THE STANDARD BRED
FAST TROTTER STALLION.

MONITOR.

Stands at the stables of the Colman Nursery
Co., on the Olive Street, five miles from
the St. Louis Court House. TERMS: \$25.00 the
season, in advance. Mares not proving in foal
may be returned free next year.

Monitor is not only a horse of great power,
having abundant bone and muscle, but his
temper and disposition are perfect for any
child can use him. He can be worked in
the sulky or Plow with perfect ease. He is so
level headed that he won at the St. Louis Fair
ground Matinee last summer, six races with-
out showing the least excitement. He won on
a three-year-old, a two thousand dollar match
race, sixty days after the first harness was
run on him, over Col. L. Hull's Col. Hull.
He is a natural trotter and never makes a
mistake. He is duly registered as Standard
bred, in National Trotting Horse Breeder's
Association.

PEDIGREE, ETC.

MONITOR (1857) foaled 1857, color black, 16
hands high, by Merchant (599), he by Alexan-
der's Belmont (41), both their dams by Mam-
brino Chief (1); dam Troiana by Trojan (312)
he by Flying Cloud (314) he by Vt. Black
Hawk (5); Flying Cloud's dam by Andrew
Jackson (4); Trojan's dam by the property of
Geo. Whitfield. These cattle are mostly
imported and all high-bred cattle, represent-
ing the best strains of their respective breeds.
Catalogues now ready. Address as below.

GEO. WHITFIELD, "GEARY HIRDS,"
Model Farm, Bl. Bro Stock Farm,
Rougmont, P. O., Can. London, Can.

JERSEY CATTLE.

I have one of the largest herds in the coun-
try composed of the choicest and most fash-
ionable strains, all registered in the A. J. C. G.
Herd Register. Young bulls cheap. York-
shire pigs. R. K. FOSTER, St. Louis, Mo.

Jersey Cattle—Shetland Ponies—All
ages. Both sexes. Best families. All colors.
THOS. T. TURNER,
706 Pine St., St. Louis, Mo.

FOR BERKSHIRE PIGS

Of best approved English and American bred
families.
WINDSOR CASTLE,
CHICHESTER, SALISBURY,
MANCHESTER LANS,
STEWART'S CASTLENA,
and F. C. ESQUINA,
OR—
Light Brahma Fowls.

Of high quality. Address SPRINGER BROS.,
At "HAW HILL," Springfield, Ill.
Send for new catalogue.

Light Brahma Fowls.

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Send for new catalogue.

Light Brahma Fowls.

GREAT CLOSING-OUT SALE

—OF—
SHORT-HORN

CATTLE,

On the Late L. PALMER,

Will be held at

Dexter Park, Chicago

TUESDAY, APRIL 22.

At the above time and place we will sell
the ENTIRE HERD, which numbers
about 65 head—17 bulls and 48 cows and heif-
ers. Among the bulls to be sold is the grand
show bull, 5th Duke of Aekland 4734. A.
H. B. the renowned sweetest winner at
St. Louis and Kansas City and other fairs in
1882. Command 4187, one of the best bred
Cruckshank bulls in America, and the
yearling Cruckshank bull Orange
Boy.

The cows represent such noted families as
Cruckshank, Young Mary, Rose of
Sharon, Josephine, Adelaide, Lady Car-
oline, and other popular families. All of the
cows and heifers that are old enough are bred
to one of the above bulls, or have calves from
them by their side.

Catalogues ready March 1st and will be sent
on application to F. C. HARRIS, Manager,
Sturgeon, Mo.

MRS. M. A. PALMER and S. C. PALMER,
COL. L. P. MUIR, Auctioneer.

PUBLIC SALE

POLLED ABERDEEN - ANGUS

AND
SHORT-HORN CATTLE.

We will on April 15, 16 and 17, at Kansas City
Mo., offer at public sale, 124 head of Aberdeen
Angus cattle, 42 bulls and 82 females, and 16
Short-Horns; also 17 Galloways (the property of
Geo. Whitfield). These cattle are mostly
imported and all high-bred cattle, represent-
ing the best strains of their respective breeds.
Catalogues now ready. Address as below.

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Model Farm, Bl. Bro Stock Farm,
Rougmont, P. O., Can. London, Can.

JERSEY CATTLE.

I have one of the largest herds in the coun-
try composed of the choicest and most fash-
ionable strains, all registered in the A. J. C. G.
Herd Register. Young bulls cheap. York-
shire pigs. R. K. FOSTER, St. Louis, Mo.

Jersey Cattle—Shetland Ponies—All
ages. Both sexes. Best families. All colors.
THOS. T. TURNER,
706 Pine St., St. Louis, Mo.

FOR BERKSHIRE PIGS

Of best approved English and American bred
families.
WINDSOR CASTLE,
CHICHESTER, SALISBURY,
MANCHESTER LANS,
STEWART'S CASTLENA,
and F. C. ESQUINA,
OR—
Light Brahma Fowls.

The Home Circle.

A LEAF FROM THE LOG-BOOK OF LIFE.

BY AN OLD SAILOR—TO FANNY FROST.

Though on life's stormy main,
On roars the waves and rain,
Driving our bark's main,
Mid shoals and breakers,
Still, on its wide expanse,
Where the waves rock and dance,
Many a happy chance
Will overtake us.

Many a merry crew,
Many a heart, leal and true,
Meet us upon the blue,
Or voyage beside us;
Cheering our onward way,
Out over the yeasty bay,
Out past the head-lands gray,
Where the mists hide us.

What though a cloud arise,
And the wind sob and sigh?
Soon far away it flies—
Vanquished—defeated
By the great king of day,
Marching onward our way;
Leading his bright array
Where clouds retreated.

Off when alone we ride,
On the waste, wild and wide,
Over the heaving tide,
Far out to seaward,
With what a thrill of joy,
Borne on the breezes o'er,
Comes the blithe "ship ahoy!"
Passing to leeward.

When the dark sorrows loom,
Gigantic, through the gloom,
And the sad, bitter rheum
Bursts its confinings,
O'er the wide waste of pain,
Breaks in that glad refrain,
Calling back hope to reign
O'er repinings;

Chasing our cares also,
Back over the misty sea,
Leaving our passage free,
Fair and unclouded,
Ah! if more tenderness
Dwelt in life's wilderness,
Fewer hearts, in distress,
Were left unshrouded.

Ham Lake, February 22nd, 1884.

Walnut on Others.

In a former article, the writer made some comment on "The Ladies of the Home Circle." In this, he has endeavored to discuss, favorably or otherwise, some of the opposite sex, as a "companion" article.

First, then, we will tackle Paulus. This writer is one who has ever striven to write only what would be worth the reading, and he has succeeded well. We wish him success, and we wish we were frequently, for we assure him they are of a nature to be appreciated by most readers.

Another point to be commended, and one worthy of imitation by all, is the marked good sense shown by Paulus in controlling his own temper, when certain small fry undertook to squelch him by adverse criticism. He did right to ignore them.

Juvenis is by all odds the poorest writer the Circle has had for many a day. He is the poorest writer, because his letters are so filled with self-conceit, as to be well-nigh unreadable, even to disinterested friends. His style is very pompous and bombastic. He makes "words" the object of his letters; whereas, thoughts, ideas, are the objects in writing or speaking. "Words" are only the medium by which we convey these "ideas" to other minds. He makes "word-pictures," which are the same as dead, because they convey no "ideas" to our minds, to give life to the picture.

Juvenis attempts to write "poetry," a task which he is utterly unfitted for doing. He has no conception of poetic thought. His verses are the merest rubbish—a mere collection of lines that jingle. There is no poetic image, no ideal for the mind, no connected thought running through and binding all into one harmonious whole. They who can not give some sensible thoughts in good straight English prose, certainly should not attempt poetic measure.

Rev. Geo. A. Watson is another who has attempted to write "poetry," without possessing a poet's mind—a poetic nature. All is not poetry that rhymes. Many a bit of prose has more of real poetic sentiment than whole columns of verse.

Rev. Watson has, we believe, informed his readers that he belongs to the Roman Catholic Church. In this he is true, and we think the Rev. gentleman will not wish to deny it, in fact proud of his choice, then he has used a title which does not rightfully belong to him. The proper title for a Catholic priest is "Father." It is given them by common consent; for centuries past, it has been the universal custom everywhere, to call their priests by that term, that title. Likewise, by common custom, all ministers of the Protestant religion are designated as "Rev.," and they only. Hence, it is as equally improper and out of place for a Protestant minister to style himself "Father," as it is for a Catholic priest to write "Rev." before his name, in either case they assume a title to which they have no right. We make no criticism of the man, nor of his church, simply we object to his using a title that is apt to mislead many people into thinking that "Rev." before his name, is a title which is certainly not ashamed of his church; then why is he calling under false colors? Let him show his colors like a man, and we will respect him for that. Watson is a man of education, with a mind thoroughly disciplined, and skilled in the use of language.

Our next character is that of "Fred of Lake." Fred's style exhibits a deal of life, vigor, energy and activity; but he lacks maturity of thought, wisdom of expression, and a systematic arrangement of his arguments, which gives the impression that he is but a youthful writer. As such, we bid him a kindly welcome, for his faults as a writer he will outgrow by persistent effort, while his heavy, vigorous style, which developed as his mind becomes more matured and cultured, will prove a desirable acquisition to our Home Circle list of writers.

There is probably no writer who has been so roundly and so unjustly criticised and censured during the past year as Frank. And why? Simply because he dared to stand by his principles; his arguments clashed with those of his opponents on the "Prohibition" and "Sunday-Law" questions. Frank had the best side of the argument, because he defended the side of right and justice, the side that is for the best interest of the people at large, rather than that of the selfish and mercenary class. These questions have been "ruled out" of the Home Circle; (although we think there are no questions now before the Ameri-

can people, which so vitally concerns the welfare of the homes of the land as these, and none so deserving of careful, thoughtful consideration by the members of this Home Circle, but simply to put on record our own convictions, our own decided opinion in favor of absolute Prohibition of the Liquor Traffic. This decision is reached after years of careful study, close observation, and thoughtful comparison. We are not ashamed to unfurl the banner of Prohibition, and to stand by it, to work for it if it need be, by voice and pen, for it is the greatest reform of the century, and is bound to succeed. There are many other noble reforms, but they will never meet their best success, till intemperance is banished from the land.

Bon Ami has made some sneering remarks concerning Frank, which do the former no credit as a gentleman. I happen to know something about Frank, of his struggle in early life, of his political honors later. He was sent to the Nebraska Legislature, and to the Kansas Legislature as B. A. falsely hinted. Frank is a man of such solid worth, such sterling integrity, that he would not be bribed or whipped around the dupe or fool of the politics of the day. He is a man of the people. If Bon Ami or "Rev." Watson have labored half as zealously and half as successfully in their respective callings as Frank has done in his, they have indeed done well.

Lloyd Guyott is the only writer who is endowed with genuine humor. He rolls it off in such a droll way, peculiarly his own, as to be really amusing. Bon Ami noticed L. G.'s marked success, and tried to imitate him, but B.'s attempt at being "funny" has ever been so complete a failure, that it was truly sickening to the intelligent reader. Bon's "funny" stories have been the most sickly reading the Home Circle has ever had.

We did intend to write of others, and especially of Bon Ami, more at length, but this letter has already reached a greater length than we intended, so must defer till another time.

WALNUT.

A New Visitor.

To the Home Circle: I have for some time been a silent reader of the Circle, and have at last come to seek admittance to it, if there be yet room for one more. Any little remote corner will do for me, as I don't want to say much. I am like "Tom" and "Jennie K." engaged in "teaching the young ideas how to shoot," but unlike either am not a "school-marm." I like Jennie's way of opening school, but think, like Tom, that to do this, a person should be a Christian. Tom suggested that the teachers of the Circle mention some remedy for tale-bearing. But I am not able to give any efficient remedy for this most despicable of all traits, except talking to them and setting forth the evils necessarily connected with it.

As a teacher, I cannot help thanking Albee for the compliment paid to the profession of teaching in speaking to Tom.

We realize that it is a noble calling, but in some instances a thankless one, as Jennie puts it, and a word like that from an outsider chews us up. It is not only a noble calling, but a responsible one. Wickesham says, "God has intrusted to our care no duty so responsible as that of the culture of our minds. The duties of the farmer, the mechanic, lawyer, the doctor, are necessary to the welfare of society, but all of them relate to what is temporary and perishable; while teaching, in its broad sense, includes that preparation which must be made by immortal beings to enjoy the highest happiness beyond the grave. Man, the last made of created things, the masterpiece, the crowning glory, the complement of all the rest. That to man which distinguishes him from the brutes that perish, is his mind, and it is mostly this the teacher is concerned with. If

"On earth there is nothing great but man," then the teacher's mind is the most important of all. He is the teacher's work! The education of a human soul! The training of our immortal being! An angel might well tremble in undertaking such a task! But there are teachers, we are sorry to say, who do not realize the true spirit of their calling. SMITHERS.

Freeburg, Ills., March 1, 1884.

The Reasoning Faculties.

In my last paper I explained the Perceptives, and showed that they had to do with the physical world, with objects and things, and their qualities. In this paper I shall treat of Reasoning Faculties, in its broad sense, and to compare, to trace out cause and effect, to understand the principles of things, and the relation they sustain to each other. There is tardiness in the reception, by what are called the educated, of the important and practical truths of philosophy, which is surprising to the unbiassed mind. Its truths have been received and cordially embraced by nearly all minds of ordinary intelligence that have investigated the subject; and its undoubted value to mankind should have secured for it a thorough investigation by every intelligent person.

It unfolds the laws which govern the human mind in relation to the physical world, to man, and to the Creator. It alone can light the path to a just and true education of the whole man, moral, physical and intellectual.

Why is this tardiness in receiving the truth in regard to the laws which govern our being? Why do we discredit the greatest discovery of modern times in regard to the mind? There are two things which are at the root of the common disbelief in philosophy: one is ignorance; the other, pedantry. If philosophy had been a baseless theory sanctioned by the name of the Pharos, it would have been to-day the laughing-stock of the schools. However, the truth can wait.

I now come to a consideration of the Reasoning faculties. Causality ascertains certain bearings and relations of facts so far as cause and effect are concerned. Franklin had this faculty large. He was a thinker—not disposed to take the views of others as his own. Causality investigates the primary cause of things, and their laws. Persons deficient in this faculty do not work out really understand the natural laws relating to any subject—they do not get hold of high principles. It leads children to ask "why" things are so.

When children ask questions, put them on the track, so they may imagine they contrived the answer themselves. It secures the exercise of causality. Causality, combined with the perceptive, Ideality, Imagination and Constructiveness, gives the power of designing, in painting and sculpture.

We reason, analogically, and ascertain the relation of things by the faculty of Comparison. Classification is performed by the faculty of Comparison. When shown a fin we know to what kind of fish it belongs, by our knowledge of that kind of fish, and by comparing the fins, and so of the wing or foot of a bird. We are shown the tooth of an animal; and if we are good naturalists we can tell whether it belongs to a carnivorous or a granivorous animal. It was by exercise of this faculty that Cuvier made such unprecedented progress in Natural History.

The faculty of Human Nature gives the power to perceive motives and to study character. A man with it large is inclined to investigate mind and to delight in the analysis of character. It is very important to those who have to govern or influence men. No one can be a good judge of men without it. A man who is in a bank, store, or hotel, or steamboat, or who is a conductor on a railway, and especially a teacher or lawyer, should be well endowed with this faculty, and if he have also a good knowledge of the whole subject of Philosophy, he will be able to comprehend men and make himself successful in whatever course of action, reason and duty may require.

Agreeableness gives a youthful, pliable mind to the whole mind. It is invariably large in those who are youthful and buoyant in old age, and small in children who are styled "old-fashioned."

There is nothing deceptive, hypocritical, or wrong in its normal activity. A man who does not possess it will not be able to do so in those who are youthful and buoyant in old age, and small in children who are styled "old-fashioned."

When Wellington, the man of iron resolution, was on his dying bed, his blindness and politeness, which had become a part of his nature, was so strong, that he did not fail to show itself. A servant asked him if he would have a cup of tea, which it was his duty to give him, the duke replied: "Yes, if you please," and these were his last words. If you do nothing else, cultivate agreeableness. ALLBEE.

Perkinsville, V. T.

The Wood Pile.

I have just read A. Moffett's "Woodpile" with pleasure, and think he is right in advising the preparing of wood during the winter for summer, instead of getting it in summer for winter. This 5th day of March, cloudy, cold, gloomy and chilly, I have been in the woods chopping and piling up wood with my boys. Although well stricken in years, I would sooner handle an axe (a good sharp one) in the woods in clear, dry weather than to lay about indoors. We too, have now wood enough ready to haul home to last all summer, which is also to be cut into stove size before it gets dry. The difference between all-ways having good fuel and bad is equivalent to the size of a hen's egg, with the shell, good bread, etc., on one hand, or ill-cooked food, and an occasional "keel-hauling" on the other. I am thankful for having plenty of wood so as not to require coal, for a detest it. In piling up the wood, I have had a most interesting time, and when putting it on the fire bark down. When I tell that the fires in my house are always started in the morning by the writer of this it will not be wondered that I take an interest in the woodpile. UNCLE SAM.

RECIPES.

RICE CROQUETTES.
Boil half a pound of rice till quite soft and dry, mix with it a tablespoonful of grated cheese, with a small teaspoonful of powdered mace, and sufficient butter to moisten it. Take a portion of the size of a hen's egg, and shape it into the form of a pear or egg. Brush over with yolk of egg, and roll in cracker or bread crumbs. Fry these croquettes in boiling lard. Very good may be made without the cheese, substituting the yolk of several eggs, with the addition of a little more butter, when they may also be fried, if you choose, in little round fat cakes.

FRIED BRAINS.

Soak in hot water a few minutes, when they can be cleaned readily; then cut into pieces; salt and pepper; dip in beaten eggs; roll in corn meal and fry.

PREPARED VEAL.

Chop three pounds of veal steak with two slices of salt and pepper; chop fine, a little salt and pepper; chop fine, add three or four pulverized crackers and two eggs; mix all well together, and form into a loaf. Bake in a two-quart pan two hours. Add a little water when the loaf is done, and serve with a hot rolled cracker over the loaf. This is to be sliced off and eaten cold. It is nice for tea, and excellent to take to picnics or excursions, for sandwiches.

PLUM PUDDING.

One pint chopped suet, one pint sour apples, one pint raisins, one pint currants, one-half pint sugar, one-half pint sweet milk, one cup of citron; beat eight eggs and mix with the above, and add sufficient flour to make it stick together; boil three hours in a cloth bag; serve with brandy sauce.

CREAM PUDDING.

Beat together half a pint of cream, an ounce and a half of sugar, the yolks of three eggs, and a little grated nutmeg. Beat the whites stiff, and stir in the last and true edition of the whole man, moral, physical and intellectual.

FOSTED LEMON PUDDING.

Take a pint of bread or cake crumbs, a quart of milk, the juice and grated peel of a lemon, yolks of three eggs, and sweeten to the taste. When baked, cover over with jelly, make a frosting of the whites of the eggs and sugar, pour over the top, and set in the oven a few minutes to brown.

[Extracts from the Home Comfort Range Co.'s, cook book, which can be had free by writing to the Home Comfort Range Company, 1901 Washington Ave., St. Louis, Mo.]

"At the head of Missouri's poetical writers is 'Sursus.' Mr. Allen McDonald, of Richmond, Mo. Next in line comes Mrs. Frank M. Imbrie, of St. Joseph, Mrs. Nellie McVey, of Marshall, and Mrs. C. R. Winkler, of Joplin."

"Poetry is a gift divine and the quartette named above are largely endowed with the divine afflatus, and have added to the Western world of letters a wealth of imagery and sentiment that will prove more enduring than the coveted laurel wreath from cavernous subterranean-winged mercuries, whose mission is akin to love and religion."—Richmond Conservator.

The sins of the father shall be visited upon his children. Two of Brigham Young's sons have died drunkards, two of his daughters are married to the same husband, and another son writes poetry.

"THE THIRD HOUSE."

His Good and Bad Members—The Remarkable Experiences of a Close Observer of Its Members—A Long Residence at Washington.

(Correspondence Rochester Democrat.)

No city upon the American continent has a larger floating population than Washington. It is estimated that during the sessions of congress twenty-five thousand people, whose homes are in various parts of this and other countries, make this city their place of residence. Some come here, attracted by the advantages the city offers for making the acquaintance of public men; others have various claims which they wish to present, while the great majority gather here, as the crows flock to the carrion, for the sole purpose of getting a morsel at the public crib. The latter class, as a general thing, originate the many schemes which terminate in vicious bills, all of which are either directed at the public treasury, or toward that revenue which the black-mailing of corporations or private enterprises may bring.

While walking down Pennsylvania avenue the other day, I met Mr. William M. Ashley, formerly of your city, whose name and residence here has made him unusually well acquainted with the operations of the lobby.

Having made my wants in this particular direction known, in answer to an interrogative, Mr. Ashley said: "Yes, indeed, the lobby is here I have become well acquainted with the workings of the 'Third House,' as it is termed, and could tell you of numerous jobs, which, like the 'Heaven Chinese,' are peculiar."

"You do not regard the lobby, as a body, vicious, do you?"
"Not necessarily, so, there are good and bad men comprising that body; yet there have been times when, it must be admitted, the combined power of the 'Third House,' has overridden the will of the people. The bad influence of the lobby can be seen in the numerous blood-bills that are introduced at every session."

"But how can these be discovered?"
"Easily enough, to the person who has made the thing a study. I can detect them at a glance."

"Tell me, to what bills do you refer?"
"Well, take the annual gas bills, for instance. They are introduced for the purpose of bleeding the Washington Gas Light company. They usually result in an investigating committee which never amounts to anything more than a draft upon the public treasury for the expenses of investigation. Another squeeze is the abolition bills, as they are called. These, of course, are fought by the butchers and market-men. The first attempt to force a bill of this description was in 1877, when a prominent Washington politician offered a fabulous sum for the franchise."

"Anything else in this line that you think of, Mr. Ashley?"
"Yes, there's the job to reclaim the Potomac flats, which had it become law, would have resulted in an enormous bill. The work is now being done by the Government itself, and will rid the place of that malarial atmosphere of which we hear so much outside the city."

"During your residence here have you experienced the bad results of living in this climate?"

"Well, while I have not at all times enjoyed good health, I am certain that the difficulty which laid me up so long was not malarial. It was something that has troubled me for years. A shooting, stinging pain, that at times attacked different parts of my body. One day my right arm and leg would torture me with pain, there would be great redness, heat and swelling of the parts; and perhaps the next day the left arm and leg would be similarly affected. Then again it would locate in some particular part of my body and produce a tenderness which would well drive me frantic. There would be weeks at a time that I would be afflicted with an intermittent pain of pain that would come on every afternoon and leave me comparatively free from suffering during the balance of the twenty-four hours. Then I would have terrible paroxysms of pain coming on at any time during the day or night, when I would be obliged to lie upon my back for hours, and keep as motionless as possible. 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The Dairy.

Officers Mississippi Valley Dairy and Creamery Association.

President—Norman J. Colman, St. Louis.
Vice President—J. W. Drury, Waterloo, Ill.
Second Vice President—Joseph E. Miller, Belleville, Ill.
Treasurer—Wm. N. Tivy, 424 North Second, St. Louis.
Secretary—Joseph W. Sheppard, 600 Olive street, St. Louis.

Brownsville, Mo., March 15.—Our new creamery was inaugurated to-day by a grand meeting at Olympic Hall, attended by farmers and their wives for miles around. The meeting was addressed by Col. Norman J. Colman, of St. Louis, who presented the importance and advantages of developing the dairy interests of Missouri in a forcible and attractive manner, and carried his large audience with him. This address will do a vast amount of good for this community. Remarks were also made by Capt. Samuel J. Spaulding, Dr. B. F. Dunkley. Our creamery was built by J. J. Smith, a citizen of Brownsville, late of Lincoln, Neb., and will begin operations April 15. The capacity is 2,400 pounds daily. It is one of the best in Missouri, and will be a grand thing for our people.

Adulteration of Butter and Cheese.

New York, March 3.—The Senate Committee investigating adulteration in food to-day, examined Dr. Martin, a chemist, who, during the past year, has investigated under the direction of the State Board of Health, several dairies where imitation cheese is made. In the factory in Orange county, it was found that the cheese made consisted principally of pure lard, the constituent parts being 75 per cent. of lard to 25 per cent. of butter. The lard used was rendered at a temperature scarcely higher than blood heat. The witness did not think the temperature employed sufficient to destroy germs of animal life. Dr. Love testified that out of thirty samples of what was sold him as pure butter, only six were genuine.

The First California Creamery.

Hon. Rush McComas, manager of the Santa Clara creamery, addressed a meeting of dairymen, farmers, and others interested in the subject, in the Grangers' hall, Gilroy, last Saturday afternoon, his subject being the history of the Santa Clara creamery and its workings. The Grange there open its doors to admit persons not members of the order, and the attendance was quite large. Daniel Tuttle introduced Mr. McComas to the audience, and the latter began by giving the history of the successful organization he manages. He said that no dairymen had been done near Santa Clara, farmers received but small prices for their butter, and with the hope of bettering themselves, they had formed an association and established the creamery. He explained how they received and paid for milk, how cheese was made, etc. He read from statements of the factory, showing that the lowest price paid was 10 cents per 100 pounds (about 12 gallons), that the highest was \$1.42 and a fraction per 100 pounds. Milk dividends are paid on the 15th of each month. Two dollars per 100 pounds of cheese is charged for manufacture, the balance of the cost being at the expense of the creamery. Milk is delivered early in the morning, is measured by weight, and must be pure and fresh. About 80 per cent. of milk received is discharged as whey, after the process of cheese-making in a large tank, and each farmer is expected to take his proportion of the whey on his return home. The whey when mixed with shorts or bran, is fed to calves, and is even used for feeding hogs. Mr. McComas' figures were interesting, showing that the creamery was profitable to the farmers of that section. From his figures we make one selection: A farmer having twelve graded cows sold, at their milk production to the creamery, for the year ending February 28th, 1883, 71,859 pounds of milk, and for the same received \$846.23—nearly \$71 to the cow for the year. Besides, he had the whey which he fed his hogs. After the conclusion of his address, Mr. McComas answered questions by dairymen concerning the creamery, and stated that any time he would be pleased to show Pajaro dairymen through the creamery. It is well known that store keepers lose money on all butter except that made by dairies, and we believe the establishment of a creamery would not only meet their hearty support, but would be profitable.

Wisconsin Dairy Notes.

The Dartford cheese factory made something over 31,000 pounds of cheese the last season.
William Paulsen, of Chilton, recently shipped 4,500 pounds of butter to Milwaukee and Chicago.
J. E. Hickey, of Hebron, Jefferson county, received \$22 for his butter during the season, being an average per cow of \$45.66.
C. B. McCanna & Co., will erect a cheese factory at Burlington in the spring. It will have a capacity of 10,000 pounds of milk a day.
A number of Rock county farmers who are interested in butter making, are arranging butter routes in the towers of their wind-mill and using the Cooley cans in them.
The Calumet county dairy board of trade has forty-five members in good standing. The county is making rapid advance in the dairy business. Following are the new officers of the board: Geo. D. Breed, president; R. W. Rowe, vice-president; E. W. Barry, secretary; Wm. Hume, treasurer; J. C. Apelin, director for three years.

Puerperal Fever in Cows.

While the medical treatment of cattle is, of course, within the proper scope of these articles, it is somewhat surprising to find a word in this connection, in regard to milk or puerperal fever, usually so fatal in its results. It is at first a local inflammation, followed by a general inflammation, and a prostration of vital powers, with extreme restlessness. It sometimes appears within a few hours after parturition, and very rarely after the fourth day. My object in referring to this much dreaded disease here, is to mention a remedy which is not generally recommended by the veterinary profession, but which I have never known to fail when applied at the proper time. It is acetic acid, prescribed in the work of Robert McClure, V. S., late of Philadelphia, and in no other work, so far as I know. Twenty-five minims of drops of the tincture of acetic acid are to be given, in say a pint of thin gruel, every three or four hours, until 120 to 130 drops have been taken. In the meantime, physio, say a pound of Epsom salts, with the same quantity of common salt, dissolved in about three quarts of water, sweetened with molasses, with half an ounce of ginger, is to be given on the bowels, which is to be repeated in two or three hours, if necessary, with injections of

soap and warm water, etc. Broken ice, in a cloth bag, is applied to the head, and friction to the limbs. All this is in accordance with usual treatment, except the acetic acid, which, according to my experience, is the all-important thing, as its effect in allaying the fever has never failed in my experience.—Breeder's Gazette.

Bloody Milk.

The following case is presented to the *Rural New Yorker*: "My nine years old cow, in fine condition, dropped a calf 13 days ago. At first she gave no milk to speak of, and when the milk came in quantity it was very bloody, and continued bloody until now, although it is less so than formerly. The cow looks well. The udder is soft, and there are no lumps in the milk. How can the trouble be removed?" To which the editor replies: There is no remedy but patience. The cow will probably soon fall off in her milk and become fat, as this is the usual behavior of such cows. You may try the effect of some cooling medicine, such as 12 ounces of Epsom salts and 1 ounce of saltpetre dissolved in water and given by means of a horn or drenching bottle. If this does not remove the excitement of the milk glands and cause a proper secretion of the milk, the case must be left to work its own cure, in its own time, by a natural process. The cow will probably be more valuable for beef than as a milk cow.

New York, March 3.—The Senate Committee investigating adulteration in food to-day, examined Dr. Martin, a chemist, who, during the past year, has investigated under the direction of the State Board of Health, several dairies where imitation cheese is made. In the factory in Orange county, it was found that the cheese made consisted principally of pure lard, the constituent parts being 75 per cent. of lard to 25 per cent. of butter. The lard used was rendered at a temperature scarcely higher than blood heat. The witness did not think the temperature employed sufficient to destroy germs of animal life. Dr. Love testified that out of thirty samples of what was sold him as pure butter, only six were genuine.

A Good Showing.

In the *Cornwall Reflector* of last week, "H. B." contributes the following letter on his experiments in feeding milk cows:
Last fall I determined to make some experiments in feeding milk cows. We had four new milkers. We began the first of January. I had long been of the opinion that steaming would pay for the trouble, so we had a kettle for heating water I provided some tubs large enough to hold a mess for the four cows. In each of these we mix 3 bushels of cut cornstalks, 8 quarts of corn meal ground with the cob, 3 quarts of wheat bran and 3 quarts of cotton seed meal. On this we put 5 pails of boiling water and cover it with a piece of old carpet. One of these messes makes a feed for the four and the other three make a feed for the four. The mess will warm 20 hours after mixing. This night and morning, with a little feed of hay or oat straw, keeps them in the best condition. They are all gaining in flesh and doing well. Two of these are high bred Jerseys and are coming four and old and are making 12 lbs. of butter per week and milk for a family of 11 persons. The other two are one a 3-Jersey that has made a calf to weigh 150 lbs. since Jan. 1, and the other is an old native who is also doing well, but it is not so good as the first. The rest of our stock we are feeding cut stalks dry, and they leave nearly one-third of them, though they eat much more of them than if they were uncut. I am fully satisfied that with wind or horsepower, and a good cutting apparatus, a man's wages could be saved in the care of 20 cows. The whole work of preparing feed by hand for these four cows does not take over two hours per day.

Do Creameries Pay?

Just now our people are taking some interest in the creamery business, and in order to give them still more interest, we copy a few extracts from the report of the superintendent of a few creameries in Nebraska, that our readers may judge whether or not a creamery will pay in Phelps county.
J. R. Davis, of Dodge county, has 40 cows. Received for cream sold last year, \$1,682.49, calves, \$400. Total expense for help, \$450. Net profit, \$1,632 or \$93.30 per cow each.
W. R. Row, of Washington county, has received from 100 cows \$25 to \$30 each for cream sold last year. He is breeding full blooded Holsteins, with 80 high grade Shorthorn cows, and thus expects to increase his profit 40 per cent. both from pasture and feeding mangolds and meal.

H. C. Stoll, of Dodge county, Beatrice post office, is one of the most prominent practical stockmen in Nebraska. He says: "My experience is that a good, fat cow will pay \$40 a season, besides raising a calf for at least \$10 dollars more. I have had cows that have paid me from \$60 to \$80 per year. The more feed you give a cow, the more milk you will get. I am well pleased with the return from my cows the present season. (1882) and shall try to milk three times the number next year. A good cow will give 17 pounds of milk per day for nine months, or 274 days, which will be a total of 4,693 pounds for the year; taking the average price paid for cream, which was 55 cents, and the return is \$41.92.

Better Cows.

At the recent meeting of the Illinois Dairymen, H. B. Gurler gave his experience as follows: "He said that he began with 20 cows, which yielded 150 lbs. of butter each. The yield of milk was 18 to 40 lbs. per cow, the percentage of cream being 7 to 20 per cent., the milk from the cow gave 40 lbs. only yielding 7 per cent. of cream. The percentage of cream, however, is not always a reliable test of the butter value of a cow's milk, as the cream from one cow's milk will make much more butter than that from another."
"In a few years," said the speaker, "by riding myself of the more unproductive cows and changing from summer to winter dairymen, I increased the butter yield from 150 to 200 lbs. of butter per cow, and increased the net profit from \$15 to \$45 per cow—an increase of 300 per cent. in the profit. For the year ending June 1, 1880, the gross income from my dairy was \$83.62 per cow, and the cost of keeping was \$37.50 per cow, leaving \$46.12 per cow after deducting the value of feed.

The practice of testing cows for butter production is a new one, but it is one of the best systems ever devised, as it compels the cows to be reined only with the same quantity of common salt, dissolved in about three quarts of water, sweetened with molasses, with half an ounce of ginger, is to be given on the bowels, which is to be repeated in two or three hours, if necessary, with injections of

Cheese and Butter-Making in Canada.

The Dominion House Committee on Immigration and Colonization met on Friday and examined Prof. L. B. Arnold, the well-known dairy specialist, on the subject of Canadian dairymen. The examination brought out a great deal of valuable information in relation to the present condition of cheese and butter manufacture and the prospects for the future, and prices obtained, and the relative value of American and Canadian dairy goods in the Liverpool market. He stated that in recent years Canadian cheese has ranked as high as that of the United States, and that in competition with them for prizes have generally been the winners. The Canadian climate too, while somewhat severe, was better for the production of a continuous supply of succulent feed and pure water during the summer season than that of the United States. He believed that the common stock of the country furnished the best dairy cows with proper care and feed, and that the most money was to be made by manufacturing butter and skim milk cheese.

A hearty vote of thanks was tendered Prof. Arnold at the close of the examination for the valuable information he had given the committee.

Cow Milk and Butter.

It is essential that some defense be raised for the consumer against a man who thinks his milk "all right" after the cow has stepped in a pailful, or who goes to the milk room and the churn reeking with the effluvia of a very dirty barn, his clothing saturated to the knees and spattered to the shoulders. It may be objected that such a case is positively nasty—it is indeed one of such construction. But it is unnatural—so it is. But it is impossible on the contrary, it is true; I have not drawn on my fancy for the details, I have given them all. I can't imagine what that butter was used for when it got to market, but I am more than ever the friend of the dealer who wrote: "We must dock you a cent a pound on that last lot of butter, and don't want any more like it at any price—it smells too much of the stable." Now the addresser of that letter had gained a trade; evidently then his butter was not always "number four," ergo, it need not remain so. Whence I conclude, that anyone who sold in large quantities by No. 1 butter makers, belong the barn shovel, scrub pail, washboard and hand basin, and that in proportion to their non-use the possibly pure product becomes inevitably foul.—*New England Farmer*.

Dairy Interests.

The dairy interests of this State will soon be much more than they are now. Think of \$500 profit from a cow in a year. When our State is more thickly settled than it is now, there will not be room enough for such large herds, and then we will be obliged to pay for our milk. No country in the world can afford better grass for butter than Colorado, and yet by the sale of oleomargarine and butterine the price of butter is seriously affected. These vile compounds are made and sold in large quantities in this State under the name of butter. We have no objection to people making and selling things by their true name. But when tons of this trash are made and sold every day as creamery butter, the law should oblige them to sell it by its right name.
These articles have been analyzed in Colorado by prominent chemists and found to be very impure, foul, and even injurious to the health. What is needed is that every Grange and farm should have the next Legislature pass a law to oblige the manufacturers to plainly and distinctly mark and brand their products and packages, and this fraud will cease, and butter will bring a fair price.—*Colorado State Republic*.

Dairy Notes.

The island of Jersey, off the coast of France, has one of the best dairies every two acres of land. Can two acres of average New York, New Jersey and Pennsylvania land be depended upon to support its two head of cattle?—*Orange County Farmer*.
Watch your farm hands and note their treatment of cattle. The brutal habit of kicking cows should not be allowed. A kick in the udder will very likely result in bloody milk. Although the consequences of a blow or kick on the ribs may not be seen at once more or less damage will certainly follow.
The exports of cheese and butter continue heavy, especially in the former staple. Last week the aggregate exports from Atlantic ports were 1,208,508 pounds of cheese, and 314,577 pounds of butter. The exports of cheese are largely in advance of corresponding dates in 1883. As compared with last year the stocks of cheese in the principal distributing centers show a deficiency of upwards of 60,000 boxes.
—The drinking of milk is becoming very fashionable in Paris. Swell milk shops are as numerous in the fashionable quarters of that gay city as swell flower shops. If it were as easy to obtain a glass of pure fresh milk at the saloons and restaurants of our large American cities, as it is to purchase a mug of beer or a glass of wine, the health, temperance and well being of our people would be materially advanced. In some way our milk producers should take advantage of the outlet for pure milk.

—The total exports of butter from the United States during the year 1883 were 22,259,660 pounds, valued at \$4,068,722, against 7,637,249 pounds, valued at \$1,516,950 in 1882. The exports of cheese in 1883 were 110,178,141 pounds, valued at \$11,652,442, against 103,739,207 pounds, valued at \$11,451,919 in 1882. These figures show that the exports of cheese in 1883 were only a little more than in 1882, the exports of butter increased nearly 200 per cent. The total value of the exports of butter and cheese from this country in 1883, in round numbers, was \$15,700,000, against \$13,000,000 in 1882, a gain of \$2,700,000. Most of this gain was made during the last eight months of the year.
One of the most successful dairymen in this section recently announced to the firm that sells his butter in Quincy market, an intended improvement in his product. When the new consignment arrived the butter merchant was surprised and disappointed. The dairy had been noted for its choice, aromatic, purity-flavored product, but here was a parcel of butter devoid of flavor or fragrance, having a most unpleasant taste. The dairymen was sent for; he had changed his herd his method of feeding or his system of butter-making were the questions rapidly propounded. No, the only attempted improvement he had made was to churn his cream sweet instead of allowing it to ripen before churning. Result—the week's dairy product sold at thirty-five cents per pound, instead of at seventy cents, the usual price for previous consignments.—*Boston Cultivator*.

While in Georgia we recently saw a breed of cows not much larger than goats. People said they were fair milkers, and one "ole aunt" made butter "fo' de sto," from which it was inferred that she made her two cows better for her own use and some to sell. Children have a natural fondness for diminutive things, as Bantam chickens, ponies, and little donkeys. Little breeds of cows too, have their fanciers. Kerrys, when well formed, and of recently imported blood, are attractive as well as useful, and Brittanys are still more so, being much smaller. There is many a village lot on which one might be stabled, and tethered, to the advantage of the household, and the comfort of the children.—*Exchange*.

There is no doubt that a good deal of the value of a blooded cow is in the care taken of her. Take any number of Jerseys, Friesians, Herefords, Polled Angus or Short Horns, and allow them to roam the roads and by-ways in summer and chew straw and cornstalk butts in winter, browsing on short pasture and drinking out of mud holes, and they will look even more scraggy and forlorn at the close of summer, than an equal number of the same breeds, who are kept and reared to such a life. On the other hand, take a number of ordinary cows, and care for them for several generations as carefully as the "bloods" are cared for, and they would be "improved" out of all semblance to their former selves or their ancestors. Man makes the "bloods" out of "scrubs," feeding and breeding with a definite object in view.

The *New York Times* notes as an instance of the exceedingly rapid growth of Western dairymen, that Iowa is producing 100,000,000 pounds of butter annually. A typical instance of the bee mania in Eastern dairymen, produces 27,000,000 pounds of butter yearly. The present product of Iowa, which is one of the newest of the Western dairy States, is 100,000,000 pounds. The product has doubled in the past two years, and promises to double again in the next two years. Iowa has a live Agricultural College, with which is connected a dairy experiment station—the only one in the whole country which gives evidence of vitality. This is because it is a practical affair and deals with native American concerns, and is not a tail to the German "kites" which are as unstable and uncertain as those frolicsome toys in the hands of the children. The consequence is that Iowa butter has an established reputation and market abroad or sells at home at nearly twice the prices at which Eastern butter is sold.

The Pig Pen.

Save the Pigs.

It is near the time of year for the appearance of the crop of spring pigs. With the present and prospective price of pork, it will pay for farmers to pay particular attention to farrowing sows. Spring pigs are worth twice as much as those coming at any other season of the year. Every good farmer should know about the day when their sows will farrow, and consequently make preparations. The sows should have a separate pen, and at this season a warm room, comfortable place, safe from rain or snow, and protected from the wind. A sow's bedding should be ample with fine straw, but not so much that the pigs will become buried in it and be smothered. Guards should be placed around the pen, wall or partitions of the pen, made of six inch boards, six or eight inches from the wall, and the lower edge seven inches from the floor, so that the pigs when the sow lays down can slip under behind the boards, and escape from being overlaid. And in case any trouble is anticipated it pays frequently for the owner sometimes to visit a farrowing sow frequently during the night. Sometimes it is so cold that the pigs will perish in a few minutes if not cared for. With a lantern, basket and blanket remove them to a warm place, and prevent them from being chilled to death. But so soon as the pigs are dry and have a pair of milk, they huddle together by the side of the mother and will be all safe. A sow so soon as she is through should have in cold weather a drink of warm scalded bran or shipstuf.

To lose the spring litter of pigs nearly the entire year is lost, the services of a valuable sow, and much of the profits of a farm. It is trouble to have one's rest of nights to be disturbed for this purpose, but on the farm success depends on careful vigilance, and many a farmer has had a new mortgage on his farm in the fall which they would not if the spring pigs had been saved by care and sacrifice of a little rest and sleep. Besides a man should have his sows so tame and docile that they will not be disturbed by his presence, and the condition of his nursing care is needed. All domestic animals are easily petted, and they are all the better of it. They are more useful, thrive better, and more easily handled for various purposes, and all emergencies. But farmers must especially take care of their sows coming in, in March and April. Hogs are yet the largest source of income to Iowa farmers, and it pays to take care of them.—*Iowa Register*.

—Says a Nebraska correspondent of the *Sixth Breeder's Journal*: "I see in your issue of Jan. 15, 1884, an Arkansas correspondent enquiring for a cure for trumps in pigs, and the cause of the disease. I have had some experience with trumps, and from my observations would say it is caused by lung trouble as much as the heart, most likely an affection of both. I have used the following remedy with perfect success: Give the affected pig three times a day 10 drops Tincture of Digitalis for two days. Twice a day drop a half teaspoonful of melted pine tar in its mouth, and don't allow it to crawl into a straw pile or nest and lay all the time, but make it take some exercise. I have used the above in some twenty cases, and the invariably came out all right. Never lost a pig since I used the above. As to hog cholera cures they are scarce, but good care is a good preventive.

HOG CHOLERA OR DYSPENTIA.—J. S. Davis, of Marion county, Iowa, claims that hog cholera is nothing more than dysentery in swine, caused by two heavy and constant doses of water. The hog heavily of beer-producing food, and drinks water charged with lime, causing thirst and fever, demanding more water. In this way the digestive organs are tasked beyond their capacity, various forms of dysentery are developed, some of which are malignant and fatal, called in many cases cholera.
Cooked eggs will always furnish all silver or plated-ware with which they come in contact. Remedy: When washing spoons, forks, knives, and so discovered, take up with a damp finger a small quantity of very fine table salt, and gently rub the spot with it; the stain will disappear at once. I say use the finger, as it is softer and better than a cloth.

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Items of News.

A priest visited a coachman who was seriously ill. "Have you the habit of going to the church?" "I can't say that I have," said the coachman in feeble voice, "but I have driven a great many persons there."—*French paper*.
Physicians prescribe in Epilepsy—"I prescribe it in my practice," is the expression used by Dr. J. A. Patmore, of Riley, Ind. He referred to Samaritan Nerve, and further along says: "It cures epileptic fits."

When earth slips from woman, says some philosopher, she seeks refuge in heaven. This may all be very true; but when earth suddenly slips from man, he is requested to crouch his elbowless, and join some temperance society.—*Puck*.

"What does the word 'pedigree' mean John?" "It means descent." "Write a sentence on the board containing the word." John went up and chalked off the following: "We pedigreed down the hill."—*Harper's Bazar*.

A Sabbath school teacher, remarks an exchange, had grown eloquent in picturing to his little pupils the beauties of heaven, and he finally asked: "What kind of little boys go to heaven?" A lively little four-year-old boy with kicking boots flourished his fist. "Well, you may answer," said the teacher. "Dead ones!" shouted the little fellow at the extent of his lungs.

A wealthy Boston man thought his son too much of a genius to be kept at home, and he sent him to Germany to be educated. The father, in describing the result, says: The boy was too much of an American to become a first-class German, and he got too much of a German to become a first-class American, so he settled down into being a sort of nondescript.

Don't you do it.—Don't suffer any longer with the pains and aches of Rheumatism, which make life a burden to you. Relief, speedy and permanent, can be procured at the nearest drug store, in the form of Kidney-Wort. Eubridge Maclean of West Bath, Maine says: "I was completely prostrated with Rheumatism and Kidney troubles and was not expected to recover. The first dose of Kidney-Wort helped me. Six doses put me on my feet, it has now entirely cured me and I have had no trouble since."

A GOOD ENDORSEMENT.—E. C. Taylor, late a farmer near Junction City, Kas., now of Winlock, Lewis Co., W. T. writes to Dr. Dickerson & Stark, of the Kansas City Medical Institute, "I thank God a thousand times that I placed my paralytic son under your care. He is now well and has recovered the full use of his limbs."

"May," asked a little Burlington girl of a companion, "what do you suppose is the difference between a bean and a bean idler?" "Well, I don't know," was the frank response, "unless they leave off the ideal after they get married."

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This powder never varies. A marvel of purity, strength and wholesomeness. More economical than the ordinary kinds, and cannot be sold in competition with the multitude of low test, short weight, adulterated, and impure powders. Sold only in cans.
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